

CBO

REPORT
OF THE
COMMISSIONER OF THE
ARMY AND NAVAL RESERVE
FOR THE
FISCAL YEAR

**ARMY
NATIONAL
GUARD**

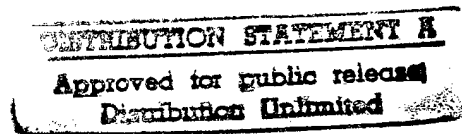
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**STRUCTURING THE ACTIVE AND
RESERVE ARMY FOR THE 21ST CENTURY**



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The Congress of the United States
Congressional Budget Office

QUALITY INSPECTED 3

NOTES

All costs are expressed in 1997 dollars of budget authority.

Unless otherwise indicated, all years referred to in this report are fiscal years.

Unless otherwise noted, Army forces in 1998 refer to levels requested in the President's budget for that year.

Numbers in the text and tables may not add up to totals because of rounding.

Preface

The U.S. Army has changed dramatically in the past 10 years in both mission and size. Its Cold War focus on deterring or defeating the Soviet Union has shifted to a more global mission of fighting smaller conflicts against less formidable foes anywhere in the world. Today's Army is also 30 percent smaller than it was a decade ago.

In spite of those changes, the composition of the Army has not shifted markedly. The service remains almost equally divided between active-duty and reserve soldiers (those in the National Guard and Army Reserve), although the reserve component now has a slight majority. A question under debate in defense circles is whether that composition is well suited to the Army's current role of fighting regional conflicts and taking part in peacekeeping operations.

The Army hopes to make its force structure better suited to its current mission by converting some of the combat forces in the National Guard to support forces. That change would eliminate some of the excess combat forces left over from the Cold War. But it would not enable the Army to get to regional conflicts more quickly than it can today. Nor would it improve the Army's ability to carry out the peacekeeping operations in which it is increasingly engaged. Finally, because the Army's plan would not reduce the overall size of the service, it would not yield significant savings. Without such savings, the Army may have difficulty finding the funds to acquire the modern weapons it will need in the next two decades.

Are more extensive changes in the Army's structure feasible? This Congressional Budget Office (CBO) study—conducted at the request of the Subcommittee on Personnel of the Senate Committee on Armed Services—examines several alternative approaches for meeting the Army's force requirements. It compares the advantages and disadvantages of each alternative with those of the current Army and the Army's plan to reorganize the National Guard. In keeping with CBO's mandate to provide objective analysis, the study makes no recommendations.

Frances M. Lussier of CBO's National Security Division prepared the study, with the assistance of Douglas J. Taylor, under the general supervision of Cindy Williams and R. William Thomas. Jo Ann Vines of CBO's Budget Analysis Division provided the cost analysis. The author also gratefully acknowledges the contributions of David Torregrosa, Lane Pierrot, and Deborah Clay-Mendez of CBO.

Christian Spoor edited the manuscript, Judith Cromwell and Cindy Cleveland produced drafts of the study, and Kathryn Quattrone prepared it for publication. Laurie Brown prepared the electronic version for CBO's World Wide Web site.

June E. O'Neill
Director

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Contents

	SUMMARY	xi
ONE	INTRODUCTION	1
	What Determines the Size of the Army? 1	
	How Is the Army Structured? 2	
TWO	THE ARMY'S FORCE REQUIREMENTS FOR VARIOUS MISSIONS	7
	Force Requirements for Two Major Regional Conflicts 7	
	Force Requirements for Lesser Contingencies 12	
	Force Requirements for Maintaining U.S. Presence Overseas 13	
	Force Requirements for State Missions 13	
THREE	COMPARING ARMY FORCES WITH REQUIREMENTS	15
	Assessment of Army Forces for Two Major Regional Conflicts 15	
	Assessment of Army Forces for Lesser Contingencies and Overseas Presence 23	
	Assessment of National Guard Forces for State Missions 24	
	Overall Assessment of the Army's Structure 25	
FOUR	ALTERNATIVES FOR MEETING THE ARMY'S FORCE REQUIREMENTS	27
	The Army's Plan 28	
	Alternative I: Increase Reliance on Host-Nation Support and Civilian Contractors 33	
	Alternative II: Create Additional Support Forces in the Active Army 36	
	Alternative III: Increase Reliance on Host-Nation Support and Create Additional Support Forces in the Active Army 41	

Alternative IV: Rely More Heavily on the Reserves to Fight a Second MRC	43
Comparison of the Alternatives	45

APPENDIX	Details About CBO's Mobility Analysis	49
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TABLES

S-1.	Changes in Force Structure Under the Army's Plan and Four Alternatives	xvi
S-2.	Effect of the Army's Plan and Four Alternatives on Annual Costs, Deployment Times, and Number of Forces	xviii
1.	Planned Distribution of Active, Guard, and Reserve Forces in the Army at the End of 1998	3
2.	Major Combat Units in the Army	4
3.	Ratio of Support Personnel to Combat Personnel in Defense Analyses and Actual Conflicts	10
4.	The Army's Deployment Goals for a Major Regional Conflict	16
5.	Changes in Force Structure Under the Army's Plan and Four Alternatives	28
6.	Effect of the Army's Plan and Four Alternatives on Annual Costs, Deployment Times, and Number of Forces	30
7.	Army Personnel Levels Through 2000 Based on the President's Budget and the Recommendations of the Quadrennial Defense Review	33
8.	Effect That Increased Support from Host Nations and Civilian Contractors Would Have on Deployment Times	35
9.	Changes in the Number of Army Personnel Under Alternative III	42
10.	Average Annual Savings Under Alternative III	42
11.	Average Annual Savings Under Alternative IV	44
A-1.	Number of Sealift Ships Under the Control of the U.S. Transportation Command and Their Readiness Status	50
A-2.	Characteristics of Various Types of Sealift Ships Under the Control of the U.S. Transportation Command	51

FIGURES

S-1.	Army Forces Planned for 1998	xii
S-2.	Number of Deployable Army Forces Compared with Requirements for Two Major Regional Conflicts	xiii
S-3.	Army Forces Under Various Alternatives	xx
1.	Army Forces Planned for 1998	4
2.	Number of Deployable Army Forces Compared with Requirements for Two Major Regional Conflicts	11
3.	Number of Army National Guard Personnel, by State, at the End of 1996	14
4.	Total Equipment Required in Theater for a Major Conflict in the Middle East	16
5.	Army Forces Available for a Conflict in Korea Followed by a Conflict in the Middle East, Compared with Requirements	17
6.	The Army's Deployment Schedule for the Combat and Support Forces Required for Two Major Regional Conflicts	18
7.	The Army's Deployment Schedule for a Major Conflict in the Middle East, Compared with Deployment During the Persian Gulf War	19
8.	Estimated Schedule for Delivering Equipment to a Major Conflict in the Middle East Under Varying Assumptions About Lift	20
9.	Estimated Schedule for Delivering Equipment to Two Major Regional Conflicts Under Varying Assumptions About Lift	21
10.	Estimated Deployment Schedules for Reserve Support Forces for a Major Conflict in the Middle East	22
11.	Army Forces Available for Two MRCs After Reorganizing the National Guard and Making Cuts Recommended by the Quadrennial Defense Review	32
12.	Total Combat Forces and Support Equipment in Theater for a Second MRC Under the Army's Plan and Alternative II	38

13.	Army Forces Available for a Conflict in Korea Followed by a Conflict in the Middle East Under Alternatives II and III	39
-----	-----------------------------------------------------------------------------------------------------------------------------	----

14.	Army Forces Under Various Alternatives	46
-----	----------------------------------------	----

BOX

1.	How Realistic Are the Two-MRC Requirements?	8
----	---------------------------------------------	---

Summary

The U.S. Army provides the bulk of the ground forces needed to carry out the nation's defense strategy. That strategy has changed dramatically over the past 10 years—from the Cold War mission of deterring or defeating the forces of the Soviet Union and its allies, to a strategy that emphasizes the United States' role as a world leader and promoter of democracy. The Army's role in furthering national security is to provide forces that can fight and win major regional conflicts, take part in peacekeeping and humanitarian relief efforts, and help maintain domestic tranquility and civil order. To play its role in carrying out those missions, the Army maintains three separate organizations: the active Army, the Army National Guard, and the Army Reserve.

Current Army Forces

In today's Army, reserve troops outnumber active-duty ones. At the end of 1996, the Army's active component contained 491,000 soldiers and its reserve component 596,000 soldiers. (As used in this study, the term "reserve" refers to members of the Army National Guard as well as the Army Reserve.) During peacetime, most reservists are not full-time soldiers, in the same sense that volunteer firemen are not full-time firemen. Consequently, their costs are much lower than those of active-duty soldiers. As a result, the Army's 1997 budget devoted \$38 billion to the pay, operations, and maintenance of active-duty forces but only about \$9 billion to comparable spending for reserve forces.

The difference in funding results in part from the difference in availability and readiness of the active and reserve components. Soldiers on active duty are always available to respond to orders from the Commander in Chief. By contrast, most Army reservists are civilians who practice or drill only part time during peacetime but can be called to active duty in the event of a crisis. The 226,000 members of the Army Reserve are federal reservists and must first be called to active duty by the President before they can be assigned military tasks outside the scope of regular training duty. The National Guard, with 370,000 members at the end of 1996, reports during peacetime to state governors and forms the state militias mandated in the Constitution. The Guard provides a force that governors can call on to meet domestic emergencies and maintain civil order. During a national crisis, the President can call members of the National Guard to federal active duty.

Force Requirements

The Army employs more than 1 million soldiers to carry out its assigned tasks as part of U.S. national security strategy. The Clinton Administration has declared that the United States must have enough forces to fight two regional conflicts similar in size to the Persian Gulf War (Operation Desert Storm) if they break out nearly simultaneously. (Not all military strategists agree that the nation must be able to fight two conflicts of such magnitude at the same time. Nevertheless, the Congressional Budget Office based its analysis on that requirement because it determines current Administra-

tion policy.) Forces that can meet that requirement are likely to be more than adequate, at least in terms of size, to meet the Army's less demanding tasks of conducting peacekeeping operations or responding to domestic emergencies (though perhaps not all at the same time).

Based on a recent study of its force requirements—the Total Army Analysis 2003—the Army says it needs 672,000 troops in deployable units to fight two nearly simultaneous major regional conflicts (MRCs). That number is more than the total number of active-duty troops in the Army but significantly less than total Army forces when all reserves are included. However, not all of the units in the Army's active or reserve forces are designed to take part in overseas conflicts. A significant fraction of Army personnel—about 25 percent of the active forces and 19 percent of the reserve forces—are assigned to the "institutional" Army; they are responsible for teaching, training, and various administrative functions. Generally, they are not part of units that are slated to deploy overseas. Of course, that still leaves the majority of Army forces (slightly less than 780,000) assigned to deployable combat or support units and thus available to military commanders world-

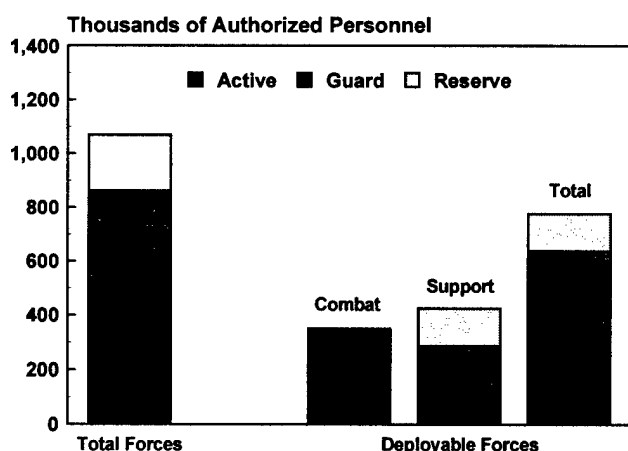
wide to take part in regional conflicts (see Summary Figure 1).

Although the Army has more deployable forces than it says it needs to fight two MRCs, those forces contain too many troops in combat units—divisions and separate combat brigades—and not enough in support units (see Summary Figure 2). The Army's combat units contain more than 350,000 troops. But in planning for two MRCs, the Department of Defense (DoD) and the Army assume that only about 195,000 of the 672,000 troops needed—or less than a third of the total—would be combat forces. According to Army plans, the other 477,000 troops would come from units that perform supporting activities, such as providing military intelligence, transporting troops and cargo around the battlefield, or providing medical care. That requirement for support forces, however, exceeds the number of such forces now in the Army by approximately 58,000 troops.

The Administration and the Army have set an ambitious schedule for deploying forces overseas to fight a major regional conflict. The notional timetable assumed in the Total Army Analysis 2003 would require that most Army troops be in the theater of operations within 30 days of the start of the conflict. Plans developed by other DoD agencies assume that all of the troops and equipment needed for one MRC would be delivered within 90 days. One reason for such a tight schedule is that military planners do not believe a future adversary would give the United States the luxury of 200 days to build up forces in a theater, as Iraq did during the Persian Gulf War.

A second major conflict would require a similar number of troops to be sent to another theater. (The two theaters DoD often mentions when discussing MRCs are the Korean Peninsula and the Middle East.) If conflicts were to break out in two areas nearly simultaneously, deployments to the second theater could begin shortly after the start of the first conflict—perhaps within 40 to 45 days—and certainly before all forces were delivered to the first theater. If deliveries to the second conflict followed the same schedule as deliveries to the first, the remainder of the 672,000 troops needed to fight two MRCs would have to arrive overseas within 90 days of the outbreak of the second conflict. Put another way, all deliveries to both theaters would have to be completed within 135 days of the start of the

Summary Figure 1.
Army Forces Planned for 1998



SOURCE: Congressional Budget Office based on Ronald E. Sortor, *Army Active/Reserve Mix: Force Planning for Major Regional Contingencies* (Santa Monica, Calif.: RAND, 1995); and General Accounting Office, *Force Structure: Army Support Forces Can Meet Two-Conflict Strategy with Some Risks*, GAO/NSIAD-97-66 (February 1997).

NOTE: Does not include cuts recommended by the Quadrennial Defense Review.

first conflict (assuming that all deliveries to the first theater were finished in 90 days, that the second conflict began 45 days after the first, and that the buildup in the second theater was also accomplished within 90 days).

Concerns About the Army's Current Force Structure

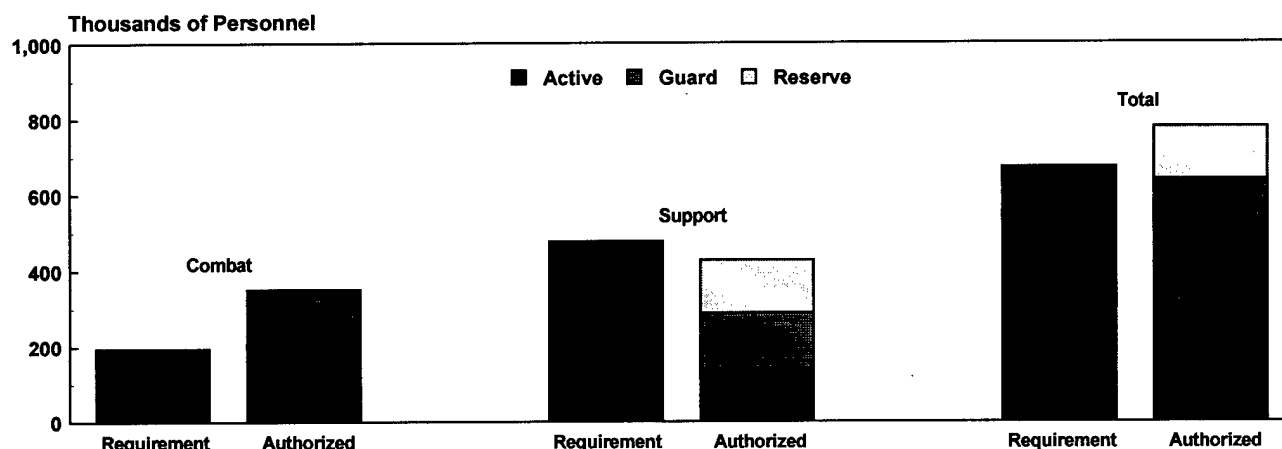
Several aspects of the Army's current force structure raise concerns among defense experts. Chief among those is the excess of combat forces. The approximately 350,000 soldiers assigned to Army combat units are many more than are needed to carry out current war plans. Slightly over half of those soldiers are assigned to the active component, and almost all of them have a direct role to play in fighting two major regional conflicts. The other 175,000 are assigned to combat divisions and brigades in the National Guard. (The Army Reserve has no combat forces.) But in the Total Army Analysis 2003, just 30,000 of those reserve combat troops are assumed to fight in either of the two major conflicts. They would presumably be used as reinforce-

ments in a second MRC, should one erupt shortly after a first.

Those 30,000 reserve combat forces would come from six of the National Guard's enhanced readiness brigades. ERBs are combat brigades that the Administration plans to maintain at a higher level of readiness than other combat forces in the Guard. Besides the six ERBs included in the Army's planning for two major regional conflicts, the Guard maintains another nine enhanced brigades with 35,000 combat troops. Furthermore, it has an additional 110,000 combat forces (organized into eight divisions) that have no direct combat role to play in likely conflicts. That fact led the Commission on Roles and Missions to conclude in 1995 that the Army had 110,000 excess combat troops that were good candidates for converting to support roles or eliminating from the force structure.

The overemphasis on combat troops is partly a legacy of the Cold War. During that time, the military believed it needed a large number of ground combat forces to deter the Soviet Union from attacking U.S. allies in Europe. Keeping excess combat troops also

Summary Figure 2.
Number of Deployable Army Forces Compared with Requirements for Two Major Regional Conflicts



SOURCE: Congressional Budget Office based on Ronald E. Sortor, *Army Active/Reserve Mix: Force Planning for Major Regional Contingencies* (Santa Monica, Calif.: RAND, 1995); and General Accounting Office, *Force Structure: Army Support Forces Can Meet Two-Conflict Strategy with Some Risks*, GAO/NSIAD-97-66 (February 1997).

NOTE: Requirements are based on the results of the Total Army Analysis 2003.

provides some insurance against unforeseen circumstances. In addition, the Army may be reluctant to shed combat forces, with their expensive weapons and intensive training requirements, because of the large amount of money and time it has invested in them.

In contrast to the overabundance of combat forces, the Total Army Analysis 2003 identified a shortage of units to support those forces. Specifically, it concluded that the Army requires another 58,400 support troops to carry out its mission of fighting two MRCs nearly simultaneously.

Another concern is that the Army's large requirements for both support and combat units make it rely heavily on the Navy and Air Force to provide transport planes and ships (known as mobility assets) to move its forces overseas. The Congressional Budget Office (CBO) estimates that for just one major regional conflict, the Army would need to move at least 40 million square feet of equipment. Because the number of ships and planes available to carry equipment is limited, the time needed to make multiple trips across oceans can substantially delay the buildup of forces in a theater.

That delay could prevent the Army from meeting its desired deployment schedule. Using relatively optimistic assumptions, CBO estimated how long it would take the U.S. mobility assets proposed for early next century—including equipment that the Army plans to store overseas, an expanded sealift fleet, and a modernized airlift fleet—to transport all of the Army's forces and associated equipment to two conflicts that broke out 45 days apart. CBO's results indicate that getting all Army forces to the theater for an initial conflict in the Middle East could require as much as 140 days, rather than the 90 days assumed in some DoD plans. (CBO's mobility analysis is described in more detail in the appendix.) The time required to complete deliveries to a second theater could be almost 200 days. Although such delays are similar to the ones experienced during the Persian Gulf War, the Army had hoped to speed up its deployments substantially in the future. All told, CBO's analysis suggests that delivering all Army forces to both theaters might take as long as 240 days—significantly longer than the 135 days consistent with DoD's notional schedule.

Another possible concern with the Army's current structure stems from the fact that most of its support

forces (almost 70 percent) are in the reserves. Because of their part-time status, reserve units take longer to get ready for deployment than comparable active-duty units. The Army's planning calls for large numbers of reservists to deploy to an initial MRC in 30 days. The Army itself acknowledges that 79,000 of those reservists would typically need more than 30 days to deploy overseas and thus would not be able to meet such a schedule. This concern may be somewhat moot, however, because mobility assets would probably not be available to move the reserve forces overseas even if they were ready within 30 days.

Getting many of those reserve units ready to deploy when mobility assets became available, however, could still be difficult. For example, the Army's force requirements call for having more than 110,000 reservists in Korea in 90 days for an MRC there. CBO estimates that transportation delays would slow the schedule somewhat but that those reservists would be needed in theater within 110 days of the start of a conflict. By contrast, in the Gulf War, approximately 200 days elapsed before the Army assembled about 73,000 reservists in the Middle East.

Even in peacetime, some types of support units—such as water-supply battalions and prisoner-of-war brigades—are found only in the reserve component. That means reserve personnel have to be put on active duty and deployed overseas to take part in even small operations such as the recent ones in Haiti and Bosnia, which involved less than 5 percent of the Army's active-duty troops. That dependence on reservists is in keeping with the Administration's Total Force Policy, which is designed to involve all components of the military in DoD operations. But activating and deploying reservists for small operations incurs both monetary and non-monetary costs.

A final concern with the Army's force structure is that it is expensive to maintain and equip. The service's current annual budget of about \$60 billion would be stretched to operate and support all of the Army's forces as well as outfit them with the new weapons and materiel they will need in coming decades. Some defense experts believe that the Army's budget is unlikely to grow appreciably in the near future—and may even shrink when adjusted for inflation. As a result, the service may need to find ways to reduce the cost of maintaining and equipping its forces.

The Army's Plan for Its Force Structure

The Army has proposed relieving its perceived shortage of support troops by converting some combat units in the reserve component to units that perform support functions. Specifically, the Army plans to turn 12 National Guard combat brigades into support units, thus creating 42,700 additional support troops and eliminating all but 15,700 of the perceived shortfall. That reorganization would take about 10 years to complete and cost almost \$3 billion, according to the Army's preliminary estimates. However, the cost (primarily to buy trucks for the new support units) could decrease as the Army continues to evaluate and refine its estimates of the equipment needed for those units.

The Department of Defense's recent Quadrennial Defense Review (QDR) recommended additional changes in the Army, including reductions in both the active and reserve components. The suggested cuts are relatively small: 15,000 active-duty soldiers and 45,000 reservists from the 1998 requested levels of 495,000 and 575,000, respectively. According to Defense Secretary William Cohen's report on the QDR, those cuts reflect increased efficiency in support activities and an anticipated reduction in the size of some Army divisions. In the case of the reserve component, the report said, another reason to have a smaller force is the reduced need for the large Cold War strategic reserve—typically assumed to mean the eight combat divisions in the Guard.

Beyond specifying that the active Army should retain all of its current combat units, the QDR report contained little specific information about how and when those reductions should be made. Thus, many of the details—such as the time needed to carry out the cuts, their distribution between deployable and nondeployable units, and whether to reduce the number of Guard combat units (beyond the 12 brigades affected by the Army's reorganization plan)—remain to be resolved. Furthermore, changes in the size of any of the Army's three organizations (active, Guard, or Reserve) would require Congressional approval. Since little is yet known about how the Army will resolve those details or

whether the Congress will approve them, CBO's analysis of the Army's plan to reorganize the National Guard assumes no changes beyond those already outlined.

The Army's reorganization plan has much to recommend it. By converting some combat units that have no direct role to play in an MRC into support units, the plan would accomplish two goals at once: filling an identified need for support forces and eliminating some redundant combat forces. It would also carry out part of the recommendation made by the Commission on Roles and Missions in 1995. And in making those changes, the Army would avoid cutting its active-duty combat forces, which some observers believe are barely adequate to carry out the missions assigned to them.

The Army's plan, however, would not address many of the issues that have been raised about the current force structure. For example, the Army would still face many of the same problems in carrying out small peacetime operations or prosecuting two nearly simultaneous MRCs that it does today. Specifically, the bulk of the support forces would remain in the reserve component. Thus, the Army would need to rely heavily on the reserves for early-deploying support forces in an MRC. And some reserve units would still be needed to support small operations during peacetime.

Among other concerns, the Army's plan would not reduce the amount of equipment that would have to be transported overseas for a major regional conflict. And although the plan would cut the number of excess combat forces, it would not eliminate them entirely. In fact, the Army would retain more than 60,000 combat troops with no direct role in fighting anticipated conflicts. Finally, the reorganization plan would cost money in the near term—at a time when the Army's budget is already strained.

Alternatives to the Army's Plan

The Army could take several other approaches to address the shortcomings in its current structure. It could rely more heavily on the host nation—the country in

whose defense it was supplying combat troops—to provide logistical support early in a conflict. That would reduce the need for large numbers of support personnel in the Army's ranks and for massive amounts of transportation to move equipment overseas. Alternatively, the Army could create more support forces among its active-duty troops, which would reduce its dependence on reserve forces in the early stages of a regional conflict or in small peacetime operations. Finally, the Army could lower its peacetime costs by cutting the size of the active force and relying more heavily on combat troops in the reserves to fight in a second major conflict, should one erupt.

CBO constructed four specific alternatives to illustrate how the Army might change if it followed those strategies (see Summary Table 1). CBO then compared and evaluated the alternatives based on how well they would meet the Army's force requirements, whether the resulting structure would be balanced between combat and support forces, how quickly those forces could respond to crises overseas, and how much they would cost (see Summary Table 2).

Recognizing today's fiscal constraints, none of the alternatives would increase the overall size of the Army or any of its three organizations. Nor would they in-

Summary Table 1.
Changes in Force Structure Under the Army's Plan and Four Alternatives

Option	Changes in Force Structure
Army's Plan: Reconfigure the National Guard	<ul style="list-style-type: none"> o Convert 12 Guard combat brigades to support units
Alternative I: Increase Reliance on Host-Nation Support and Civilian Contractors	<ul style="list-style-type: none"> o Eliminate four Guard combat divisions o Rely on host nations and civilian contractors for the equivalent of 62,000 Army support troops in two major regional conflicts
Alternative II: Create Additional Support Forces in the Active Army	<ul style="list-style-type: none"> o Convert two active-duty heavy divisions and one Guard combat division to support units
Alternative III: Combine Alternatives I and II	<ul style="list-style-type: none"> o Convert two active-duty heavy divisions to support units o Eliminate four Guard combat divisions o Cut 35,000 support troops from the reserve component o Rely on host nations and civilian contractors for the equivalent of 62,000 Army support troops in two major regional conflicts
Alternative IV: Rely More Heavily on the Reserves to Fight a Second Major Regional Conflict	<ul style="list-style-type: none"> o Eliminate three active-duty divisions (two heavy and one light) and four Guard combat divisions o Rely on host nations and civilian contractors for the equivalent of 62,000 Army support troops in two major regional conflicts

SOURCE: Congressional Budget Office.

NOTE: None of CBO's alternatives would carry out the Army's planned conversion of 12 Guard combat brigades to support units.

crease the size of the Army at the expense of the Navy or the Air Force. In addition, CBO focused solely on options that would change the composition of the forces that make up the Army's deployable units. None of the alternatives examine the feasibility of converting forces in the institutional Army to forces that would deploy to fight in regional conflicts.

For options that would cut the Army's force structure (Alternatives I, III, and IV), CBO estimated the savings that would result both directly and indirectly from those cuts. Direct savings come from avoiding costs to operate and support the deployable forces that would be eliminated. Indirect savings come from reductions in the Army's infrastructure that might be possible because of the cuts in force structure. In other words, indirect savings reflect the potentially reduced need for medical support, training, repair facilities, and other support associated with a smaller Army. As such, indirect savings reflect cuts in the number of both Army civilians and nondeployable forces.

Alternative I: Increase Reliance on Host-Nation Support and Civilian Contractors

The first option would reduce both the Army's need to have support forces in theater early in a conflict and the requirement for large numbers of ships and planes to get them there. Under this alternative, the U.S. troops that arrived earliest in the theater would receive some support services from the host country and from civilian contractors hired by the Army. Such support could include everything from housing to transportation to supplies of food, water, and fuel.

The United States has used that type of assistance in the past. During the Korean War, the Army relied on the services of hundreds of thousands of Korean and Japanese civilians. More recently, the government of Saudi Arabia assisted the Army during the Persian Gulf War by providing petroleum products and trucks to transport them. Civilian contractors provided further support services during the Gulf War, are providing them now in Bosnia, and are on retainer to the Army to furnish such services worldwide when needed.

Assistance from host countries and use of civilian contractors could lessen the number of support forces that the Army needs to maintain in its own ranks. Both Saudi Arabia and South Korea—commonly considered likely theaters for any major conflict involving U.S. forces in the near future—have civilian infrastructures that are more than capable of providing significant amounts of host-nation support. (Army planning assumes that Saudi Arabia and South Korea would provide some support during an MRC. But the amount is limited to what is explicitly spelled out in signed agreements and is much smaller than the amount of similar support that host nations have provided in the past.) In addition, civilian contractors working for DoD in the theater could provide services such as laundry and food that would otherwise have to be supplied by U.S. soldiers. The combined contributions of host-nation support and civilian contractors during two MRCs could potentially replace the support and services provided by 62,000 Army soldiers (see Summary Figure 3 on p. xx).

In terms of force structure, Alternative I would cancel the Army's plan to convert National Guard combat units to support units. It would eliminate four combat divisions, including about 58,300 personnel, from the Guard. It would also cut another 3,200 Guard members from the institutional Army who indirectly support those divisions.

Advantages. Alternative I would have two advantages over the Army's plan. First, by cutting four Guard divisions and forgoing Guard reorganization, the Army could save roughly \$1.4 billion a year once all the divisions had been disbanded—\$800 million in direct costs and \$600 million in indirect costs. Second, this alternative would reduce the amount of equipment to be shipped overseas for two MRCs by more than 10 percent. The reason is that support equipment from the host nation would already be in place, and civilian contractors generally provide services by subcontracting with local suppliers that are also in the country already. Any transportation from the United States that the contractors might need would generally be arranged through the commercial sector. With less equipment to transport overseas, the Army could get all of its forces in place for each regional conflict 10 to 30 days earlier than under its current plan (see Summary Table 2).

Disadvantages. Adopting Alternative I would have some disadvantages, although they are roughly the same as those associated with the Army's current force structure. Relying on host nations and civilian contractors for support—which the Army would be forced to do now if it had to fight two MRCs—entails risks. Army planners cannot always predict where a conflict is going to break out, and the civilian infrastructure may not exist to support operations in some remote areas. Some host nations might be reluctant or unable to provide such assistance, as was the case with Somalia.

Furthermore, host-nation civilians and civilian contractors may be unwilling or unable to provide services during some conflicts because of potential exposure to harm, particularly from chemical or biological weapons.

For all of those reasons, the Army prefers not to count on the availability of host-nation support and civilian contractors beyond levels guaranteed in signed agreements. Instead, the Army's preference is to keep all of the support forces it might need within its own ranks.

Summary Table 2.
Effect of the Army's Plan and Four Alternatives on Annual Costs, Deployment Times, and Number of Forces

	Army in 1998	Army's Plan ^a	Alternatives			
			I	II	III	IV
Average Annual Savings or Costs (-) (Millions of 1997 dollars)						
1998-2010						
Direct savings	n.a.	-200 to -400	700	-200	850	2,500
Total savings	n.a.	-200 to -400	1,200	-200	1,550	4,500
After 2010						
Direct savings	n.a.	0 ^b	800	100 ^b	1,300	2,950
Total savings	n.a.	0 ^b	1,400	100 ^b	2,150	5,250
Deployment Time^c (Days after start of first conflict)						
First Theater	130	130	120	130	120	120
Second Theater ^d	200	230	200	230	200	200
Combat Forces from the Guard Needed for the Second Conflict^e						
Combat Brigades	0	0	0	6	6	9
Assumed Extent of Host-Nation Support						
Soldier Equivalents	15,000	15,000	62,000	10,000	62,000	62,000

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

a. Does not include personnel cuts recommended by the Quadrennial Defense Review.

b. Some small savings in operation and maintenance costs may result from converting combat units to support units.

c. Time required to deliver all troops and equipment needed to fight each of two major regional conflicts.

Alternative II: Create Additional Support Forces in the Active Army

A second option would add support units to the active-duty Army to lessen its reliance on reservists early in a conflict or during peacetime. Doing so would reduce the risk that reserve support units might not be available during a crisis because of delays in mobilization. It would also eliminate the need to activate reserve forces in peacetime to support small operations.

Budget constraints limit the overall size of the active Army, and CBO did not examine alternatives that would increase the number of deployable forces in the Army. In particular, CBO did not consider creating more deployable support forces by reducing the size of the institutional Army. Thus, the only way to increase support forces in the active component, given those constraints, is to convert combat units to support units. This alternative would turn two active divisions (with their roughly 33,000 combat troops) into support units

Summary Table 2.
Continued

	Army in 1998	Army's Plan ^a	Alternatives			
			I	II	III	IV
Changes in Deployable Forces						
Active Component						
Combat divisions	n.a.	0	0	-2	-2	-3
Combat personnel	n.a.	0	0	-33,000	-33,000	-44,000
Support personnel	n.a.	0	0	33,000	33,000	0
Reserve Component						
Combat divisions (Guard)	n.a.	-4 ^f	-4	-1	-4	-4
Combat personnel (Guard)	n.a.	-42,700	-58,300	-15,000	-58,300	-58,300
Support personnel (Guard and Reserve)	n.a.	42,700	0	15,000	-35,000	0
Total Force Structure						
Combat Divisions						
Active component	10	10	10	8	8	7
Reserve component (Guard)	8	6 ^g	4	7	4	4
Deployable Support Forces						
Active component	136,000	136,000	136,000	169,000	169,000	136,000
Reserve component	291,000	333,700	291,000	306,000	256,000	291,000
Total Personnel						
Active Army	495,000	495,000	495,000	495,000	495,000	430,300
Army National Guard	367,000	367,000	305,000	367,000	287,100	305,000
Army Reserve	208,000	208,000	208,000	208,000	189,600	208,000

d. Assumes the second conflict begins 45 days after the first.

e. To form the equivalent of 5½ divisions.

f. Two divisions and six separate brigades.

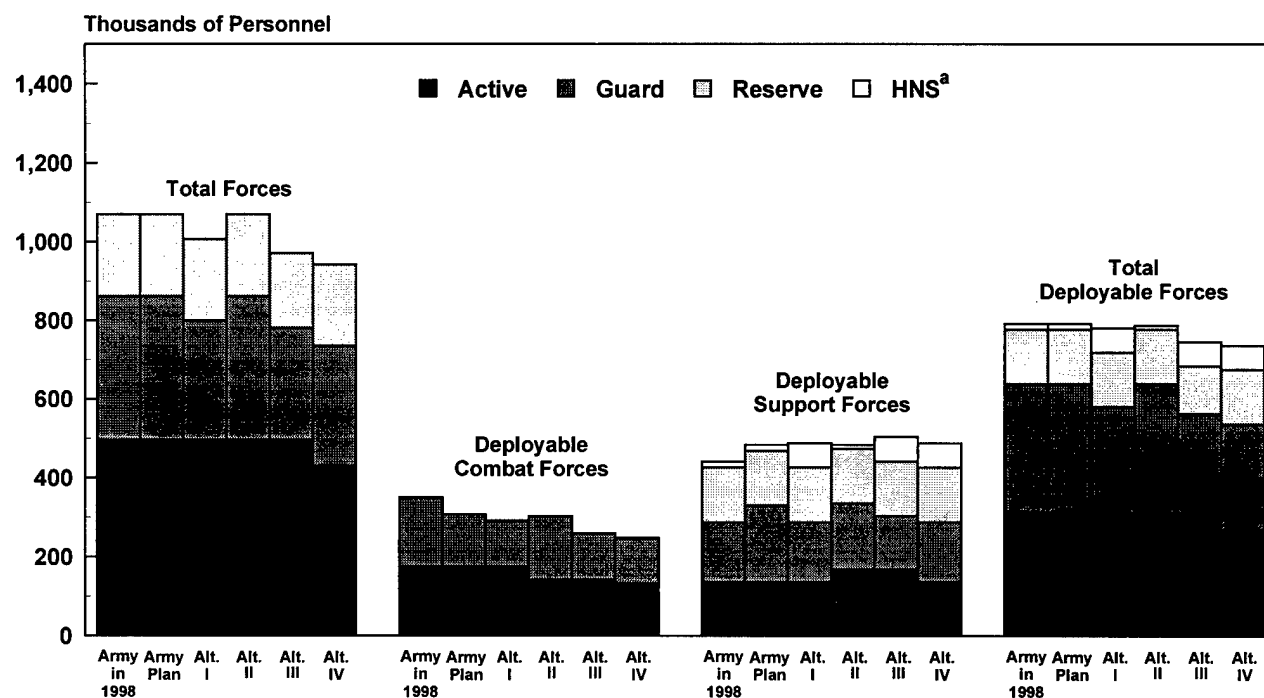
g. Although the Army's plan would retain six combat divisions in the National Guard, it would reduce the number of separate brigades from 18 to 12, an additional reduction equivalent to two combat divisions.

using a process similar to the one the Army will use to reconfigure National Guard units. Alternative II would also create an extra 15,000 support forces in the reserves by switching one Guard combat division to support units. As with the Army's plan, the time and investment required for the conversion would be substantial—up to a decade and approximately \$3 billion.

Under this alternative, the Army's combat forces would total eight active divisions and seven Guard divisions. That reduced number of active-duty combat units means the Army would have to call on the Guard for combat forces in the event of a second MRC. Since the Army's stated minimum is $5\frac{1}{3}$ combat divisions for each major regional conflict, it would need six Guard brigades—roughly equivalent to the combat forces in two divisions—to prosecute a second conflict.

This alternative could take advantage of the long time needed to deliver equipment for two MRCs by using that time to train and prepare the reserve combat units for deployment overseas. CBO's analysis shows that building up all of the forces necessary to fight and support two nearly simultaneous major conflicts could take up to 230 days. The Administration's goal is to have enhanced readiness brigades prepared for combat after 90 days of training. If it meets that goal, the Army should be able to train and deploy six of the 15 ERBs in the National Guard during that 230-day window. Given the availability of $3\frac{1}{3}$ active divisions to provide the critical initial response during a second conflict—and the long delays to complete deployments to the second theater—relying on Guard units to fill out the combat forces could be an efficient use of the Army's resources.

Summary Figure 3.
Army Forces Under Various Alternatives



SOURCE: Congressional Budget Office.

a. Host-nation support and civilian contractors.

Advantages. Alternative II would address a number of the concerns raised about the Army's current force structure. It would yield a slightly larger increase in the overall number of support personnel than would the Army's plan (see Summary Table 2). And with more support forces in the active Army, the service would not have to rely on the reserves to provide a large number of support forces on short notice during the early stages of a major conflict. If placed in the appropriate units, the additional active-duty support personnel would also eliminate the need to rely on reserve units during small peacetime operations. Finally, by converting a total of three combat divisions to support units, Alternative II would reduce the number of excess combat forces in the Army.

Disadvantages. Adopting this alternative could have at least five disadvantages, however. First, some observers would argue that National Guard forces could not be ready to play a combat role within the time required. For example, a study by RAND has concluded that readying just one Guard combat brigade for deployment overseas would take more than 90 days. The same study argued that training six ERBs could take at least 159 days and might well take longer. Any delays in calling up or training the reserves would further lengthen that time.

Although that amount of time is less than the 230 days needed to complete deliveries of support equipment to the second conflict, waiting for the Guard brigades to arrive could delay a counterattack. The reason is that counterattacks do not always require that all of the support forces needed for a theater be in place. During Operation Desert Storm, the coalition launched a counterattack with far fewer support forces than called for in the Total Army Analysis 2003. Support levels comparable with those attained in Desert Storm could be achieved in the second theater as early as 155 days after the start of the first MRC. But according to RAND's analysis, it is unlikely that all six ERBs could be in the theater that soon. Thus, relying on the Guard to provide six combat brigades might postpone a counterattack. Alternatively, it might cause the rushing of unprepared brigades into the theater and, possibly, into combat.

Second, this alternative would not provide the same capability for the second conflict as the Army's plan, even if the Guard ERBs were fully trained when they

entered the theater. The reason is that six separate combat brigades, although containing roughly the same number of combat forces as two divisions, do not provide the same capability. Divisions include many units besides combat brigades, such as those dedicated to providing command and control, artillery, logistics, and aviation support. Those units support and enhance the combat potential of the combat brigades. Thus, if six separate combat brigades from the Guard were attached to the three active divisions sent to a second MRC under this alternative, the resulting force would not have the same capability as one composed of five full divisions.

A third potential drawback is that adopting Alternative II would make it harder for the Army to provide as many combat forces as it would like for a second MRC. The Total Army Analysis 2003 calls for deploying six combat brigades to the second conflict as reinforcements for the initial 5 1/3 combat divisions. Under Alternative II, preparing a total of 12 combat brigades from the Guard (six to fill out the initial combat force and six for reinforcements) to participate in even the second MRC might be impossible given the relatively short expected duration of such a conflict.

Fourth, adopting this alternative could run counter to DoD's Total Force Policy. That policy, adopted in the early 1970s, seeks to better integrate the military into the fabric of U.S. society by involving soldiers from the reserve component in all major military undertakings. Since 1985, the Army has used reservists in increasing numbers in peacetime operations. Although Alternative II would result in small savings by not requiring the call-up of reservists to help support small-scale peacetime operations, it would also reverse the Army's recent trend by limiting the involvement of reservists in such operations.

Fifth, because this alternative would not reduce the size of either the active or reserve component of the Army, it would not produce significant savings compared with the Army's plan. In fact, converting combat units to support units would cost an estimated \$400 million per year for about 10 years. Those costs would be partially offset by about \$100 million a year in savings from not activating reserves in peacetime for small operations. Those savings would continue after 2008, when the restructuring envisioned in this alternative would be complete.

Alternative III: Increase Reliance on Host-Nation Support and Create Additional Support Forces in the Active Army

The Army could, of course, adopt the strategies embodied in the two previous alternatives at the same time. The resulting, more ambitious option would depend on the host nation and civilian contractors to provide support early in a conflict and would also add more support forces to the active Army. As noted in Alternative I, by relying on in-country support, the Army would have no need to convert Guard combat units to support units, as it now plans. Instead, it could eliminate four Guard divisions.

Like Alternative II, this option would also reconfigure two combat divisions in the active Army so as to create 33,000 additional support forces. In turn, that would allow the Army to eliminate a similar number of support forces from the reserve component (for the purposes of this alternative, equally divided between the National Guard and the Army Reserve). Those changes would leave a smaller combat force than either of the two previous options: a total of 12 divisions, eight in the active component and four in the Guard (see Summary Table 2).

Advantages. By significantly reducing the size of the reserve component, Alternative III would have several advantages over the Army's plan. It would increase the number of support personnel from the active Army that would be available early in a conflict. It would also lessen the amount of materiel that the Army would have to transport overseas to fight a major conflict. Thus, the Army could have all of the forces it needed in theater about 10 to 30 days sooner than under its current plan.

Finally, although this alternative would incur some costs to reconfigure combat units to support units, it could save the Army more than \$1.5 billion a year in the near term (with about \$850 million coming directly from savings associated with a smaller reserve force, and the rest coming from indirect savings). After 2010, total savings could reach \$2.2 billion a year. About \$1.3 billion of that would be direct savings, and \$850 million would be indirect savings from having a reserve

component that was roughly 20 percent smaller than the authorized 1998 level.

Disadvantages. Adopting Alternative III would entail some risk, however. It would mean that the Army would not have enough forces in its own ranks to support two major conflicts simultaneously. Instead, the Army would have to rely on the host nations and civilian contractors, and no guarantee exists that such support would be available in the event of a conflict.

A greater risk, however, might be associated with cutting active-duty combat forces and relying on reserve combat units to augment them in the case of a second conflict. Like the previous option, Alternative III would require the Guard to deploy at least six brigades to the second theater. As noted earlier, those brigades would have less capability than the two full active divisions they were replacing, and their lack of associated divisional support structure might make them less effective in combat.

Having to train and prepare six Guard combat brigades for deployment might extend the time required to assemble all of the necessary forces in the second theater. Under this alternative, the support provided by host nations and contractors would reduce the amount of U.S. equipment delivered to each theater. As a result, all U.S. forces could be in theater for the second MRC 30 days sooner than under either the Army's plan or Alternative II. That accelerated schedule would decrease the time available for readying and transporting the six Guard combat brigades—from 230 days under Alternative II to 200 days. (To arrive in 200 days, the Guard brigades would have to be ready to leave in about 180 days to allow enough travel time.) As a result, some of the six Guard brigades might not be able to arrive in theater with the rest of the forces, which could delay military operations.

Alternative IV: Rely More Heavily on the Reserve Component to Fight the Second MRC

The final option would achieve significant savings by placing more reliance on the Army's reserve component to fight a second major regional conflict. That approach might be appealing if planners considered it un-

likely that a second conflict would break out in the midst of a first. If such a conflict did occur, under this alternative a small number of active combat units would deploy to the second theater and stabilize the situation in order to give reserve units time to train and prepare.

Alternative IV would cut the Army's combat forces and rely on outside sources to provide some support during MRCs. Consistent with the recommendation of the Commission on Roles and Missions to reduce the number of excess combat forces in the Army, this option would eliminate more than 100,000 combat troops in the form of three active divisions and four Guard divisions. No new support forces would be created in either component; instead, like Alternatives I and III, this option would rely on host nations and civilian contractors to provide some logistical support for both major regional conflicts.

Adopting this alternative would still leave the Army with more than enough combat forces to fight two MRCs nearly simultaneously. Today, the Army fields 18 combat divisions and 21 combat brigades in its active and reserve components combined—significantly more than the $10\frac{2}{3}$ divisions it considers necessary to conduct two MRCs at once. After making the cuts in Alternative IV, the Army would still have almost 54,000 combat troops beyond the 195,000 it plans to deploy overseas for two major regional conflicts. That remaining combat force, however, would be less ready and less capable than the Army's current force because it would include fewer active combat divisions.

Alternative IV would require the Army to train and prepare a significant number of the Guard's enhanced readiness brigades for combat in a relatively short time. Specifically, the Guard would have to deploy nine of its 15 ERBs—the equivalent of three combat divisions—overseas within 200 days in order not to delay the buildup of forces in the second theater. The Army has a strategy for preparing up to 10 Guard combat brigades to deploy in 160 days or less (indeed, five of those brigades could be ready in roughly 100 days). If the Army can meet that schedule, those Guard ERBs should be able to play a significant role in a second conflict.

Advantages. The biggest advantage of Alternative IV would be the substantial savings: about \$5.3 billion a

year once all of the changes had been made. Almost \$3 billion of those savings would come directly from eliminating three divisions from the active Army and four divisions from the Guard. The other \$2.3 billion would be realized indirectly by reducing the size of the institutional Army. An orderly drawdown could take several years to complete, which would delay the Army's realization of the full savings associated with this option. Nevertheless, annual savings in the near term would still be substantial.

The bulk of the savings from this alternative—almost \$4 billion a year when it was fully implemented—would result from reducing the size of combat forces in the active Army. A much smaller amount would come from cutting the size of the Guard and depending on host nations and civilian contractors for support services.

Host-nation support would reduce the amount of equipment the Army would need to ship overseas for major conflicts, thus shortening the time required to assemble all forces in theater. Even so, CBO's analysis suggests that delivering all of the Army's equipment to separate theaters for two nearly simultaneous MRCs could take at least 200 days, time that the Army could use to ready reserve units for combat.

Disadvantages. The biggest disadvantage of adopting Alternative IV would be the increased risk associated with relying heavily on reserve units to fight major regional conflicts. As in its own plan, the Army would need to use large numbers of support forces from the reserves to fight just one MRC. Perhaps of more concern, it would depend on the reserve component for a much larger portion of the combat forces for a second conflict. Although this option would leave the Army with $2\frac{1}{3}$ active divisions that could deploy to a second MRC, an additional three divisions would have to come from the reserves. The Army could train and ready nine Guard brigades in less than 160 days, but doing so would not be its preferred strategy. It would mean training two brigades simultaneously at some training sites, would require resources that some analysts doubt are available, and would produce one brigade that would be prepared for rear-area security but not for frontline combat. Furthermore, any delays in calling up the reserves would make it difficult, if not impossible, to have nine fully trained combat brigades from the Guard in the second theater within 200 days.

Like Alternatives II and III, this option would reduce the overall combat capability provided to the second conflict by substituting three Guard brigades for each active division it eliminated. That effect would probably be greater with this alternative, however, because it would eliminate one more active Army division than the other options would. Furthermore, Alternative IV would require the two active divisions and the corps organization assigned to the second MRC to support and control a total of nine separate brigades from the National Guard. That task could be significantly harder than the one assumed in the two previous options: having three active divisions and a corps controlling and supporting only six Guard brigades.

Another disadvantage of Alternative IV is that it might leave the Army with a less ready pool of Guard combat units to act as reinforcements for a second MRC. The first nine of the Guard's 15 ERBs would form part of the initial 5½ divisions sent to a second conflict. Thus, the six least ready brigades would be the ones available as reinforcements under this alternative, compared with the six most ready under the Army's plan.

Conclusions

The Army, like the rest of DoD, is facing a serious dilemma in the next decade. It wants to maintain a large number of ready and well-equipped forces so it can fight two wars similar in size to Operation Desert Storm nearly simultaneously without relying heavily on allies or civilian support. However, the funds to pay for and equip those forces are increasingly hard to come by.

The Army plans to retain all of the units it needs to conduct two major regional conflicts, relying primarily on the active component for combat forces and the reserve component for support forces. It would keep additional combat units in the National Guard that have no clear role in those conflicts, to act as a strategic hedge and to provide troops to the states in the event of domestic emergencies.

Alternatives to the Army's plan could save money, provide more support forces earlier for the first conflict, or both. However, they would generally entail increased risk in prosecuting a second (but perhaps unlikely) conflict.

- o Alternative I would rely on host nations and civilian contractors to provide some support during the conduct of major conflicts. By accepting the risk that U.S. allies would not or could not help in defense of their territory—a small risk based on history—the Army could save \$1.4 billion a year.
- o Turning active-duty combat forces into support forces, as illustrated by Alternative II, would give the Army the most support personnel who would be available during peacetime and would be ready to deploy early in a major conflict. But that approach would save very little money from the Army's plan and could even cost more than the current force structure in the short term. It would also rely on combat units from the National Guard to help fight a second major conflict.
- o Alternative III would combine the changes (and the risks) associated with Alternatives I and II and would save \$2.2 billion a year when fully carried out.
- o The riskiest approach, illustrated by Alternative IV, would reduce the number of active-duty troops in the Army. Instead, it would depend somewhat on U.S. allies and very heavily on reserve forces in the event of a second conflict. That approach would save a significant amount of money—almost \$5.3 billion a year compared with the Army's plan. It would also rely on combat forces in the National Guard that, although not as ready as those of the active Army, could be prepared within several months to defend U.S. interests.

All of the alternatives that CBO examined entail varying degrees of risk that are greater than what is associated with the Army's plan. However, they all represent viable choices that differ from the Army's less risky but more expensive plan for its force structure.

Introduction

The United States maintains a large military organization to carry out its two-pronged national security strategy: remaining engaged abroad as a world leader and enlarging the world's community of democratic societies. Within the military, the Army is responsible for providing, training, and equipping the bulk of the land forces to carry out that strategy. Although the Army has shrunk in the past 10 years, it is still large. Today's Army contains over 1 million active-duty and reserve soldiers and commands an annual budget of approximately \$60 billion. The mission for those soldiers has changed dramatically in the past decade. No longer is their goal to deter or defeat the forces of the Soviet Union and its allies in a war in central Europe. Instead, they must be able to fight less formidable foes (perhaps more than one at a time) anywhere in the world.

Although the size of the Army has changed over the past decade, its composition has not. The nearly 1-to-1 ratio of active-duty to reserve soldiers has remained roughly the same.¹ The question now is whether the Army's current makeup is well suited to its current mission. That issue is the subject of an ongoing debate whose resolution could have potentially far-reaching ramifications.

What Determines the Size of the Army?

The U.S. Army has missions at both the federal and state levels. The Department of Defense establishes the

size and composition of all three parts of the Army—the active Army, the Army National Guard, and the Army Reserve—based primarily on the forces needed to carry out the federal missions. However, the National Guard also has a constitutionally mandated state mission to provide military support to civil authorities.

The Clinton Administration has conducted two reviews of the military capability needed to implement U.S. national security strategy: the Bottom-Up Review under former Secretary of Defense Les Aspin and the Quadrennial Defense Review under current Secretary William Cohen. Both reviews produced similar results.² They concluded that conventional forces, including all of those in the Army, must have the capability to fulfill three federal missions:

- o Fighting two major regional conflicts—each the size of the Persian Gulf War (Operation Desert Storm)—nearly simultaneously;
- o Conducting a wide range of lesser contingencies, such as smaller-scale combat operations and peacekeeping missions; and
- o Providing a permanent U.S. military presence in such regions as central Europe and the Korean Peninsula.

Of those missions, the first one would most likely place the greatest demands on the Army. At its peak, Operation Desert Storm involved more than 300,000 Army troops. By contrast, the current peacekeeping operations in Bosnia involved at their peak only one-tenth as many U.S. soldiers. To provide overseas pres-

1. The active component, which made up 51 percent of the Army in 1986, now makes up 46 percent.

2. See Secretary of Defense Les Aspin, *Report on the Bottom-Up Review* (October 1993); and Secretary of Defense William S. Cohen, *Report of the Quadrennial Defense Review* (May 1997).

ence, the Army has approximately 64,000 troops permanently stationed in Europe and 27,000 in South Korea. (At least some of those troops are also available to take part in regional conflicts and peacekeeping operations that occur nearby.)

Besides playing a role in federal missions, the Army National Guard fulfills the constitutionally mandated requirement to provide state militias to maintain civil law and order. National Guard units report to state and territorial governors in peacetime.³ They are at the governors' disposal to quell domestic unrest or provide disaster relief. Typical missions for the Guard include riot control, such as in Los Angeles in 1992, and relief and cleanup after natural disasters, such as Hurricane Andrew in Florida (also in 1992).

How Is the Army Structured?

The total Army, with more than 1 million people in uniform, is made up of several different but overlapping components (see Table 1). The major distinction is between full-time (active-duty) and part-time (reserve) soldiers.⁴ Other differences are based on the roles that soldiers play. Deployable units are designed to be sent overseas in case of emergency, whereas nondeployable units are assigned tasks at their home base that preclude them from deploying. Combat forces focus on fighting, whereas support forces perform a variety of functions to support combat troops. In order to determine how many and what kind of forces the Army needs to carry out its missions, it is necessary to understand how the Army is organized.

The Active and Reserve Components

Although the Army includes a large active-duty force—more than 491,000 soldiers at the end of 1996—the

majority of its military personnel are part-time soldiers in the reserves. The reserve component numbered 596,000 soldiers at the end of 1996, with 370,000 in the National Guard and 226,000 in the Army Reserve.⁵

Members of the three organizations perform distinctly different missions in peacetime. Soldiers on active duty are always on call to respond to orders from the Commander in Chief. The National Guard and the Army Reserve are both part-time forces—but whereas the Guard reports to the governors during peacetime, members of the Army Reserve are federal soldiers. The Reserve was created early this century to put a pool of people (primarily doctors) at the President's disposal who could be activated quickly during a national crisis. At that time, some question existed about whether members of the National Guard could be deployed out of the country on federal missions. During the past several decades, however, court rulings and legislative changes have removed almost all impediments to Presidential call-up of National Guard units. Unless they volunteer for federal duty, members of either the Guard or Reserve must be called to active duty by an executive order before they can be assigned to federal military tasks outside the scope of regular training duty.⁶

Even though reserve personnel outnumber active-duty soldiers, the bulk of the Army's resources are spent on its active-duty forces. The service's 1997 budget devoted \$38 billion to the pay, operations, and maintenance of active-duty forces, compared with only \$9 billion for reserve forces. The fact that part-time soldiers cost so much less to maintain than full-time soldiers has led some people to argue that reserve forces provide an inexpensive insurance policy against an unknown future.

3. Territories other than states that maintain an Army National Guard include the District of Columbia, Puerto Rico, Guam, and the U.S. Virgin Islands.

4. In this study, the term "reserve" refers to all members of the Army National Guard and the Army Reserve (including full-time members and those part-time members who drill regularly in peacetime and are known as selected reservists).

5. In his report on the Quadrennial Defense Review, Secretary Cohen recommended reducing the size of the Army by 15,000 active-duty troops and 45,000 reserve troops—presumably from the authorized 1998 levels shown in Table 1. The report did not specify when those cuts should be made or how the reserve reductions should be distributed between the National Guard and the Army Reserve, although later deliberations within the Army yielded more information. The Army's plans are discussed in detail in Chapter 4.

6. The Secretary of the Army (rather than the President) can call up individual reservists for 15 days of active duty in a given year, but that period is normally required for annual training.

Other Distinctions in the Army's Force Structure

Besides the active and reserve components, the Army can be divided into two parts based on the forces that fight wars and those that equip, train, and sustain fighting forces. Indeed, each of the Army's three organizations is composed of both warfighting forces and forces that are part of headquarters or of the training and sustainment base. Warfighting forces make up the bulk of the Army's personnel and comprise all those assigned to units that can be deployed to a conflict overseas. Those deployable units can be further subdivided into combat units and support units.

Deployable Versus Nondeployable Forces. Almost three-quarters of the Army's total personnel are assigned to units that can deploy overseas to fight in wars (see Table 1). Those units include the soldiers who

drive tanks, fly helicopters, and repair trucks in the field. Most of the remaining one-quarter of the Army is assigned to units that perform support functions at their home base, such as training soldiers, developing new weapons, or administering day-to-day operations. Those units constitute the "institutional" Army (they are sometimes referred to as Table of Distribution and Allowances units). A small fraction of Army personnel—about 12 percent of the active Army and less than 6 percent of the service as a whole—is not assigned to any unit, either deploying or nondeploying, but consists of people who are temporarily in school or in transition between units. Those soldiers are also considered unavailable for deployment overseas.

The percentage of deployable forces varies in the Army's three organizations. The active Army has just 63 percent of its personnel assigned to deployable units, compared with 89 percent for the Guard and 67 percent for the Army Reserve. Those differences result

Table 1.
Planned Distribution of Active, Guard, and Reserve Forces in the Army at the End of 1998
(By number of authorized personnel)

	Active Army	National Guard	Army Reserve	Total
Deployable Units				
Combat units	176,000	175,000	0	351,000
Support units ^a	<u>136,000</u>	<u>152,000</u>	<u>139,000</u>	<u>427,000</u>
Subtotal	312,000	327,000	139,000	778,000
Nondeployable Units				
Institutional units ^b	124,000	40,000	69,000	233,000
Other ^c	<u>59,000</u>	<u>0</u>	<u>0</u>	<u>59,000</u>
Total	495,000	367,000	208,000	1,070,000

SOURCE: Congressional Budget Office based on Ronald E. Sortor, *Army Active/Reserve Mix: Force Planning for Major Regional Contingencies* (Santa Monica, Calif.: RAND, 1995); and General Accounting Office, *Force Structure: Army Support Forces Can Meet Two-Conflict Strategy with Some Risks*, GAO/NSIAD-97-66 (February 1997).

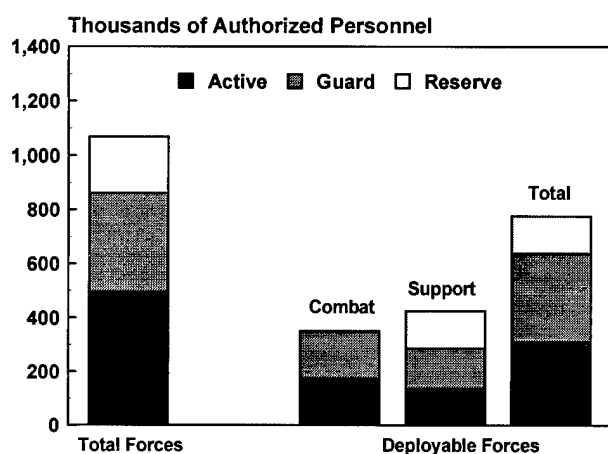
NOTE: Total force levels are based on the President's budget request for 1998 and exclude cuts recommended by the Quadrennial Defense Review.

- a. Forces not assigned to major combat units such as divisions or brigades.
- b. Units in the Army's Table of Distribution and Allowances.
- c. Includes trainees, transients, and students.

partly because the reserve component relies on the active Army for such institutional functions as developing and purchasing equipment, formulating doctrine, and performing other administrative tasks, and partly because members of the reserves remain assigned to their units even when they are temporarily unavailable, such as when they are attending school.

Combat Versus Support Forces. Not all of what the Army refers to as warfighting forces actually fight. Indeed, most of the Army's warfighting—or, more accurately, deployable—forces do not engage directly in combat (see Figure 1). Units that would deploy overseas for a regional conflict come in two general types: combat forces (such as armored, infantry, and mechanized infantry brigades and divisions) and forces outside those combat brigades and divisions that provide support for them (such as engineering, transport, and medical units). Slightly more than half of the soldiers assigned to Army combat brigades and divisions are in the active component; the rest are in the Guard. (The Army Reserve has no combat units.) The preponderance of support personnel, by contrast, are in the reserve component.

Figure 1.
Army Forces Planned for 1998



SOURCE: Congressional Budget Office based on Ronald E. Sotor, *Army Active/Reserve Mix: Force Planning for Major Regional Contingencies* (Santa Monica, Calif.: RAND, 1995); and General Accounting Office, *Force Structure: Army Support Forces Can Meet Two-Conflict Strategy with Some Risks*, GAO/NSIAD-97-66 (February 1997).

NOTE: Does not include cuts recommended by the Quadrennial Defense Review.

Table 2.
Major Combat Units in the Army

	Active Army	National Guard
Combat Units		
Divisions ^a	10	8
Separate brigades and armored cavalry regiments	3	18 ^b
Total Combat Brigades	33	42
Total Personnel Assigned to Combat Units ^c	176,000	175,000

SOURCE: Congressional Budget Office based on Secretary of Defense William S. Cohen, *Annual Report to the President and the Congress* (April 1997); Ronald E. Sotor, *Army Active/Reserve Mix: Force Planning for Major Regional Contingencies* (Santa Monica, Calif.: RAND, 1995); and General Accounting Office, *Force Structure: Army Support Forces Can Meet Two-Conflict Strategy with Some Risks*, GAO/NSIAD-97-66 (February 1997).

a. A division typically includes three combat brigades.

b. Fifteen of the brigades are designated as enhanced readiness brigades.

c. Authorized positions.

Size of Army Units. The Army's deployable forces, both combat and support, are organized into units of varying size. A division contains between 11,000 and 18,000 soldiers and is the unit most commonly used to describe an army's combat forces. For instance, the U.S. Army is generally characterized as including 18 divisions—10 in the active portion and eight in the Guard (see Table 2). In another example, the Bottom-Up Review described the Army combat forces needed for one major regional conflict as equaling four to five divisions.⁷

Another common unit of combat forces is the brigade, with 3,000 to 5,000 soldiers. A division typically includes three combat brigades, but combat brigades can also exist independent of a division. One prominent example is the armored cavalry regiment, an inde-

7. Aspin, *Report on the Bottom-Up Review*, p. 19. The more recent Quadrennial Defense Review did not alter that assessment, although it did predict that the requirement would change as the effectiveness of U.S. and enemy forces changed.

pendent brigade whose role is to act as modern cavalry. Indeed, the National Guard includes almost as many separate brigades as ones attached to divisions.

Three brigades, although not organized into a division, are often said to be equivalent to a division in combat power. However, three separate brigades do not equal a division in either personnel or overall capability. That is borne out by the fact that although the Guard has more combat brigades than the active Army (42 compared with 33), the active Army has more soldiers assigned to its combat units. The reason is that the active Army has more divisions than the Guard, and each division contains several thousand soldiers in addition to those assigned to the combat brigades.

Both divisions and brigades include support and administrative personnel as well as the combat personnel who drive tanks or fire weapons. Those support personnel are assigned to combat-support and combat-service-support units, such as headquarters, military police, helicopter, engineer, air-defense, intelligence, field artillery, finance, medical, and transport units. (However, this report refers to all personnel assigned to combat divisions and brigades as combat forces.)

The Army also has thousands of such support units that are not assigned to a combat division or brigade in peacetime. In the event of war, they would be attached to an even larger administrative organization, such as a corps, which commands two to five divisions, or a theater army, which includes two or more corps.

Designing the Army

Many factors go into shaping the Army. The country's national security strategy and the military capability

considered necessary to carry it out establish the requirements for combat forces. In the absence of other considerations, those requirements would in turn determine the number of forces needed to support the combat units. Combat and support units between them make up the deployable force. With the size of the deployable force set, it would be possible to establish the size of the necessary administrative structure and, hence, of the entire Army. How often and how quickly forces were needed would then determine whether they were placed in the active component or the reserve component.

That simple outline is fraught with complications, however. Budget constraints limit the overall size of the Army and influence which forces are in the active component and which are in the reserves. Politics and the demands of governors for state missions also shape the Army, particularly the size and composition of the National Guard.

In this study, the Congressional Budget Office uses four criteria to look at how well the Army's forces match the missions it is assigned. First, are those forces large enough to meet the requirements that the Army has established to carry out the Administration's national security strategy? Second, are they balanced appropriately between combat and support units? Third, how quickly can the Army's forces deploy in response to crises overseas? And fourth, can the Army afford to maintain and equip its forces in these times of constrained budgets? After assessing the current force structure based on those criteria, this study examines the Army's plan for its forces and compares that plan with several alternative approaches to meeting the Army's force requirements.

The Army's Force Requirements for Various Missions

The U.S. Army is one of the largest in the world.¹ Its size reflects the significant military capability that the Army must provide to support the Administration's national security strategy. As outlined in Chapter 1, that strategy includes various military missions, such as fighting two nearly simultaneous major regional conflicts (MRCs), conducting peacekeeping operations and providing humanitarian assistance, and maintaining a U.S. presence overseas.

In determining the size of the forces to carry out those missions, the Administration has concluded that the United States must field enough troops to fight and win two major regional conflicts, each similar in size to the Persian Gulf War, that occur at roughly the same time. (In the Administration's view, if the military did not have enough forces to deal with a second conflict, other nations would be more likely to try to take advantage of the United States while it was involved elsewhere.) Forces that are large enough to fight two nearly simultaneous MRCs should be more than sufficient to carry out the less demanding missions of peacekeeping and overseas presence, although perhaps not all at the same time.

What foes should the United States be prepared to fight in the near future? The Department of Defense's (DoD's) Quadrennial Defense Review identified several regional dangers that DoD believes will confront the nation between now and 2015. First among those is the

threat that Iran and Iraq pose to the free flow of Middle Eastern oil. Next is the threat that North Korea presents to South Korea because of its increasingly dire economic condition and its large military presence close to the South Korean border.

In line with those threats, the forces of Iran, Iraq, and North Korea form the backdrop for DoD's current planning. Much of that planning is based on the ability to provide enough military force to fight conflicts that break out on the Korean Peninsula and in the Persian Gulf region nearly simultaneously. Former Defense Secretary Les Aspin, in his *Report on the Bottom-Up Review*, postulated that the Army would need to provide four to five divisions of combat forces for each of those conflicts. Some defense analysts have questioned the validity of that requirement and of the two-conflict scenario as a whole (see Box 1). Nevertheless, current Defense Secretary William Cohen has reaffirmed Aspin's requirement, at least for the near future.

Force Requirements for Two Major Regional Conflicts

Fighting two MRCs at the same time would, according to the Army, require nearly all of the deployable forces in the active component and most of those in the reserves. However, the Army says it lacks enough deployable support forces to conduct two major wars simultaneously with sufficiently low risk. At the same

1. The Army ranks fifth in the world based on total numbers (including the reserves). It ranks seventh in the number of active-duty soldiers.

time, the Army has combat forces in the reserves that would not take part directly in either of two MRCs as those conflicts are now envisioned.

Determining Force Requirements

The Army relies on an analytic process to determine its total force needs. Using a method called the Total Army Analysis (TAA), the Army reviews its force-structure requirements every two years. The TAA method begins with the number of combat forces that DoD has decided will provide the military capability necessary to carry out U.S. national security strategy. For each major regional conflict, the Army assumes that it would need to provide a minimum of 5 1/3 divisions. Thus, to fight two MRCs, the Army would need

to deploy at least 10 2/3 divisions—or 32 out of the 33 combat brigades in the active Army.

Based on the number of combat forces, the TAA process determines how many and what kind of support forces are necessary to accompany those combat units overseas. Specifically, the analysis estimates how many people the Army needs in combat-support and combat-service-support units besides those belonging to combat divisions and brigades. Combat-support forces provide operational support, such as air defense and combat engineering, for combat forces. Combat-service-support units typically perform personnel, medical, logistics, or administrative functions. The support requirements in the Total Army Analysis also include people whom the Army must dedicate to support other services, primarily in transportation and quartermaster

Box 1. How Realistic Are the Two-MRC Requirements?

Not all defense analysts believe that the U.S. Army must be prepared to fight two major regional conflicts (MRCs) similar to Operation Desert Storm at the same time. According to Michael O'Hanlon of the Brookings Institution, although the Administration's policy is to be able "to fight and win two major regional wars at once, the nation has probably never had that capability since World War II, and it is hard to see why we should start now."¹

Even when analysts concede the validity of the two-MRC scenario, some argue that the Department of Defense (DoD) is overstating the number of U.S. forces needed to fight those wars. Both O'Hanlon and Lawrence Korb, a former DoD official who is now also at the Brookings Institution, contend that smaller forces than those planned by the Pentagon would be more than adequate to fight wars in Korea and the Persian Gulf (the major regions of concern highlighted in the Quadrennial Defense Review). According to Korb, the U.S. intelligence community has concluded that South Korea is capable of defending itself from North Korea without help from U.S. forces. Korb also asserts that the Iraqi military is now less than half as powerful as it was dur-

ing Operation Desert Storm. As a result, he concludes that the U.S. military is already more than capable of fighting two nearly simultaneous Desert Storms.²

Carrying the argument further, O'Hanlon postulates that the United States could carry out its two-MRC strategy with fewer combat forces than it has today. That conclusion is based on two arguments. First, he maintains that the Pentagon is too pessimistic about the likely requirements for waging wars in Korea and the Persian Gulf region. As a result, smaller ground forces than those called for in U.S. military planning would be adequate to fight wars there. Second, O'Hanlon asserts that the chance of such large U.S. forces being needed in two places at once is remote. Instead, he argues that a small U.S. ground force could hold the enemy at bay in a second theater while U.S. air forces inflicted heavy damage. That approach would require fewer ground forces, in total, than the Administration plans to keep in the U.S. military. Those two arguments lead O'Hanlon to conclude that the Army and Marine Corps could safely reduce their forces by about 10 percent.³

1. Michael E. O'Hanlon, "The New Order: Pentagon Lite," *Los Angeles Times*, December 9, 1996, p. B5.

2. Lawrence J. Korb, "More Than Ready for Two Desert Storms," *Washington Post*, January 29, 1997, p. A21.

3. Michael E. O'Hanlon, *The Pentagon's Quadrennial Defense Review*, Policy Brief No. 15 (Washington, D.C.: Brookings Institution, April 1997).

units (they represent about 6 percent of total support requirements).

The results of the Total Army Analysis released in January 1996—the most recent that are publicly available—reflect work that was completed in the summer of 1995. Because it was designed to determine the shape of the Army in 2003, that analysis is known as the Total Army Analysis 2003 (TAA-03).

The TAA-03 yielded a requirement for 672,000 deployable troops to fight two nearly simultaneous major conflicts. Of those, 195,000 would be combat troops. The other 477,000 (over 70 percent) would be support forces, which would outnumber combat troops by almost 2.5 to 1. That requirement is not without controversy, however, because it differs from both previous analytic results and actual combat experience.

Differences with Other DoD Studies. The Total Army Analysis 2003 yielded a force requirement for two regional conflicts that is significantly higher than those associated with other DoD studies. Shortly before the TAA-03, DoD analyzed the military's need for transport ships and aircraft. That analysis, called the Mobility Requirements Study Bottom-Up Review Update, was based on an assumed need to deliver 457,000 Army troops and their equipment to fight two MRCs—far fewer than the 672,000 troops that the Army says would be necessary.²

Part of the difference between the forces assumed to be deployed in the Mobility Requirements Study and the Total Army Analysis 2003 is that the latter includes six National Guard combat brigades that the Army would send to the second MRC to reinforce the 5 $\frac{1}{3}$ active divisions. Those reinforcing units account for an additional 30,000 combat troops.

The other 185,000-person difference between the number of Army forces deployed in the two studies comes in the area of support troops. A few of the additional support troops in the TAA-03 (about 10,000) are associated with the six Guard combat brigades that the Army includes in its analysis. Another 30,000 or so are

associated with a second corps command structure that the Army believes it would need in Korea. A corps typically has two to five divisions under its command, and one Army corps organization is permanently stationed in South Korea. Nevertheless, the Army assumed in the TAA-03 that it would deploy another corps organization from the United States to help control operations in the event of a conflict in Korea. Since adequate command structure already appears to be in place in Korea for the 5 $\frac{1}{3}$ divisions that would fight there, some people have questioned the need for the 30,000 extra support personnel.

Two other factors contributed to the large requirement for support troops in the Total Army Analysis 2003. First, the study assumed that citizens of the countries where the conflicts were being fought would provide very little logistical support. Previous analyses, including the Mobility Requirements Study, assumed that the host nations involved in the two wars would provide greater levels of support—as much as the equivalent of 42,000 support soldiers in all, including fuel-supply and transportation workers. (During the Persian Gulf War, for example, Saudi Arabia provided trucks and drivers, thus reducing the number of troops and the amount of equipment that the U.S. Army had to transport to the region.) The Total Army Analysis 2003, however, assumed a much lower contribution from the host nations, which boosted its requirement for support troops by 28,000.

Second, the Army's analysis projected historically high rates of fuel consumption and medical casualties. One study performed for the Office of the Secretary of Defense contends that the force requirements in the TAA-03 are based in part on assuming that rates of activity that represent historical peaks are sustained for long periods of time.³ Those assumptions in turn lead to large demands for fuel and generate large numbers of casualties. The number of support personnel (truck drivers, fuel pumpers, nurses, and doctors) needed as a result is 68,000 higher than DoD assumed in its mobility analysis.

To some extent, the discrepancy between the numbers of Army troops sent to two MRCs in DoD's mobility study and the Total Army Analysis may result from the different purposes of the two studies. The Mobility

2. See John C.F. Tillson and others, *Review of the Army Process for Determining Force Structure Requirements* (Alexandria, Va.: Institute for Defense Analyses, May 1996), for a comparison of the Army forces deployed to two MRCs in the Mobility Requirements Study Bottom-Up Review Update and the TAA-03.

3. Ibid.

Requirements Study was conducted to determine how many transport planes and ships (so-called airlift and sealift) the United States would need in order to move military forces overseas to fight two major regional conflicts. One of the constraints on that analysis was that the resulting lift fleet would have to be affordable under planned DoD budgets. As a consequence, the study's authors may have limited the number and types of forces deployed by the Army to those that an affordable lift fleet could move within a reasonable amount of time and with an acceptable level of risk.

By contrast, the TAA process for determining force requirements yields the number of forces that would be needed to minimize the Army's risk in fighting two MRCs. Furthermore, that process does not explicitly consider the mobility assets or time needed to move its resultant force—that is, it assumes a limitless availability of airlift and sealift.

Given the different approaches of the two studies, therefore, it is not surprising that they produce different results about how many Army forces would take part in two overlapping MRCs. Because the Mobility Requirements Study took into account the problems associated with moving a large military force overseas, its results are perhaps more representative of how the United States would actually conduct two nearly simultaneous wars.

Differences with Military History. The force requirements resulting from the TAA-03, particularly for support personnel, are much larger than historical evidence would suggest. In fact, the ratio of support to combat forces in the Total Army Analysis 2003 is around 40 percent to 80 percent higher than the ratios from past U.S. conflicts (see Table 3). That difference comes partly from the Army's desire to provide all of the support that its combat units could possibly need using its own forces, and partly from the questionable assumptions detailed above.

Two historical conflicts that exhibited low support-to-combat ratios—the Korean and Persian Gulf Wars—were ones in which the host nation contributed significantly to the war effort. During the Korean War, the Army relied on the services of 150,000 Koreans and an equal number of Japanese employees in Japan in addition to numerous contractors. During the Gulf War, the Saudi government provided or paid for more than 4,000

trucks, 1.5 million gallons per day of petroleum products, and over \$2 billion worth of food. By contrast, the TAA-03 assumed very little in the way of host-nation support.

Even excluding the extraordinary contributions during the Korean and Persian Gulf Wars, the support requirements derived from the Army's analysis are high. They exceed those of such extended conflicts as World War II and the Vietnam War by about 40 percent. The support-to-combat ratio in those two conflicts was approximately the same one used for DoD's recent study of mobility requirements; the department labeled that ratio as representing a moderate risk. The current Army leadership may feel that additional support personnel will help reduce the risk in future conflicts below even a moderate level.

Although the results of the Total Army Analysis 2003 are not universally accepted, they form the basis for the Army's planning process and provide the ser-

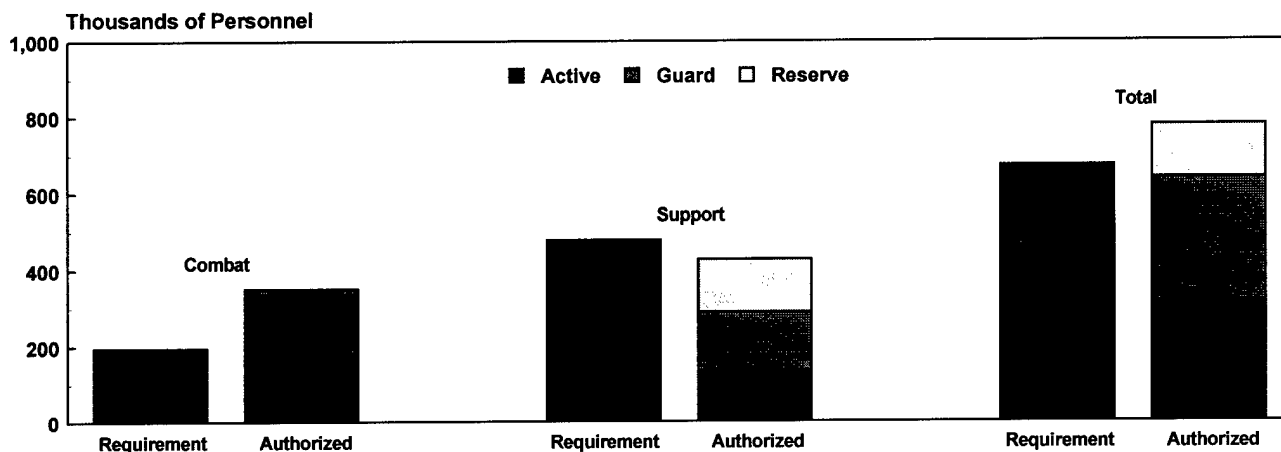
Table 3.
Ratio of Support Personnel to Combat Personnel
in Defense Analyses and Actual Conflicts

Conflict or Analysis	Ratio (Support personnel to combat personnel)
World War II	1.7 to 1
Korean War	1.5 to 1
Vietnam War	1.8 to 1
Persian Gulf War ^a	1.4 to 1
Mobility Requirements Study Bottom-Up Review Update	1.8 to 1
Total Army Analysis 2003	2.5 to 1

SOURCE: Congressional Budget Office based on John C.F. Tillson and others, *Review of the Army Process for Determining Force Structure Requirements* (Alexandria, Va.: Institute for Defense Analyses, May 1996); and Department of Defense, Military Traffic Management Command, *Deployment Planning Guide* (September 1994).

a. Just before the start of the ground war.

Figure 2.
Number of Deployable Army Forces Compared with Requirements for Two Major Regional Conflicts



SOURCE: Congressional Budget Office based on Ronald E. Sortor, *Army Active/Reserve Mix: Force Planning for Major Regional Contingencies* (Santa Monica, Calif.: RAND, 1995); and General Accounting Office, *Force Structure: Army Support Forces Can Meet Two-Conflict Strategy with Some Risks*, GAO/NSIAD-97-66 (February 1997).

NOTE: Requirements are based on the results of the Total Army Analysis 2003.

vice's most recent publicly available estimate of its requirements for deployable forces.⁴ Despite objections by some people in the Office of the Secretary of Defense to the assumptions, DoD's civilian leadership ultimately approved changes to the Army's force structure based on the results of the analysis.

Forces Available to Fight Two MRCs

Overall, the Army has more deployable forces than the Total Army Analysis 2003 calls for, but those forces are not necessarily configured properly. The Army contains almost 780,000 soldiers in deployable units (40 percent in the active component and the rest in the reserves). That total exceeds the number of deployable soldiers required for two major regional conflicts by more than 100,000 (see Figure 2). However, an imbalance exists between the required mix of combat and support forces and the mix currently in the Army. The Army's analysis calls for 195,000 combat troops and 477,000 support troops to participate in two MRCs. But the Army planned for 1998 will contain 351,000 combat troops and less than 430,000 support troops.

(Those numbers do not include the cuts recommended by the Quadrennial Defense Review.) In other words, the service will face a shortfall of at least 47,000 support forces compared with what the TAA process determined was necessary to fight two regional wars. In fact, when the analysis looked at the specific units required to support those wars, it yielded a larger shortage of support forces. It found that the Army needs more than 58,000 additional support personnel, with the largest needs in truck companies and units that handle fuel supplies.

At the same time, according to the Army's own analysis, the service has an excess of combat forces. About half of its combat troops are in the active component. Because they are composed of full-time soldiers, active-duty combat units are the most prepared to fight in conflicts that erupt with little warning. For that reason, Army planning assumes that the first 10% combat divisions (165,000 out of the total 195,000 combat troops) deployed for two MRCs would come from the active Army. The remaining 30,000 combat troops would come from the National Guard. That leaves 145,000 combat forces in the Guard with no specific role to play in fighting two MRCs, according to the Total Army Analysis 2003 (see Figure 2).

In contrast to combat forces, most of the support forces used in the two major conflicts would come from

4. Some of the assumptions of the TAA-03 that analysts have questioned may have been changed for the succeeding study—the Total Army Analysis 2005. Although the Army completed the bulk of the work for that analysis during the summer of 1997, the results were not publicly available at the time of this study.

the reserve component. Of the Army's total support forces, only 136,000 (less than one-third) are assigned to the active Army. The Army would need at least 217,000 support troops for a conflict on the Korean Peninsula, and even more—at least 250,000—for a war in the Persian Gulf region, where the Army does not have an extensive military presence and support structure.

Assembling so many support forces would require the Army to mobilize large numbers of reservists. That need was demonstrated during the Persian Gulf War. In January and February 1991, when the active Army contained around 750,000 troops, about 300,000 soldiers participated directly in the war. Nevertheless, more than 70,000 of the soldiers sent to the Persian Gulf were reservists, all assigned to support units.

The Army takes somewhat contradictory approaches to providing combat forces and support forces for its most demanding mission. In planning how to fight two MRCs, the Army relies almost exclusively on its active component for combat forces but leans very heavily on the reserves for support forces. The Army justifies that stance by arguing that it takes much less time to prepare reserve support units for deployment than reserve combat units. But at the same time, the Army's overall structure contains excess combat forces and (according to its analysis) insufficient support forces.

Force Requirements for Lesser Contingencies

The Army must also shape its forces to perform a host of less demanding but more likely missions—such as humanitarian assistance, peace enforcement, and smaller-scale combat operations. The Bottom-Up Review concluded that in planning for those types of missions, prudence would dictate using up to three Army divisions and a total of 50,000 combat and support personnel from all of the services.⁵ It also declared that the forces slated to take part in peacekeeping or other humanitarian missions could be part of the same collec-

tion of forces needed for major regional conflicts.⁶ That policy means that the United States would not be able to carry out sizable peace-enforcement or other operations at the same time that it was fighting two MRCs. But it also means that if the United States had sufficient forces to conduct two regional conflicts, it would have more than enough for those lesser contingencies.

During the past decade, the nation has been involved in several operations of much smaller scale than the Persian Gulf War. The United States intervened unilaterally in Panama in 1989 and in Haiti in 1994, each time with about 18,000 soldiers. A force that at one point included more than 19,000 U.S. soldiers is taking part in international peacekeeping efforts in Bosnia. By contrast, 16 times as many troops (about 300,000) were in the Middle East during the peak of the Gulf War. On a similar scale, the TAA-03 estimated that the Army would need between 300,000 and 330,000 soldiers to fight one major regional conflict.

Although typical peacetime missions such as peacekeeping and humanitarian assistance require fewer troops than major conflicts do, they place other difficult demands on Army forces. Some peacetime missions last for a long time. Thus, even though they do not require a large number of soldiers to deploy overseas at any given time, over a period of months or years the total number of soldiers involved can be substantial. And many peacetime operations require a very different mix of skills than those required for combat. Rather than destroying enemy forces (which is the focus of combat), peacekeeping emphasizes civilian control, policing, and community liaison. As a result, some units that participate in peacetime operations must train for several weeks afterward to regain a sufficiently high level of combat skills.

Despite those constraints, the nearly 780,000 deployable troops in the Army's active and reserve components should be sufficient to conduct smaller-scale combat operations or to fulfill U.S. obligations to multilateral peacekeeping missions. Indeed, the active Army alone contains more than 300,000 deployable

5. Secretary of Defense Les Aspin, *Report on the Bottom-Up Review* (October 1993), p. 22.

6. Secretary Cohen has reiterated that point, stating that "U.S. forces must . . . be able to withdraw from smaller-scale contingency operations, reconstitute, and then deploy to a major theater war in accordance with required timelines." Secretary of Defense William S. Cohen, *Report of the Quadrennial Defense Review* (May 1997), p. 12.

troops, made up of 176,000 combat troops and 136,000 support personnel. Those full-time forces are many times larger than the number (around 50,000 from all services) that Administration policy says would be needed for operations short of a major regional conflict.

Force Requirements for Maintaining U.S. Presence Overseas

One final mission identified by the Administration that would require large numbers of Army forces is maintaining a military presence abroad to protect and advance U.S. interests. The two major permanent stations for Army personnel overseas are in Europe and South Korea. The U.S. presence in both areas has declined since the 1980s, but it is still sizable. The Army has about 64,000 troops stationed in Europe, down significantly from the 209,000 in 1989. It maintains some 27,000 soldiers in South Korea, a slight decrease from the 32,000 in 1989.

Because those soldiers represent only a small portion (less than 30 percent) of the deployable troops in the active Army, the bulk of the force is free to be sent elsewhere. Moreover, as long as sufficient troops remain in central Europe or South Korea to protect U.S. interests, the rest of the troops there are available to participate in lesser contingencies. Such troops frequently have an advantage in that they are closer to where such operations may occur. In the case of peacekeeping operations in Bosnia, for example, many of the U.S. Army personnel have come from forces stationed in Germany. Similarly, U.S. forces in South Korea may be better situated to deal with contingencies in the Pacific than troops stationed in the continental United States. Finally, some of the U.S. forces based overseas—particularly those in Europe, where tensions are currently low—would be available to take part in a major conflict should one erupt nearby. Indeed, large numbers of forces from Germany were sent to the Persian Gulf War in 1991.

Force Requirements for State Missions

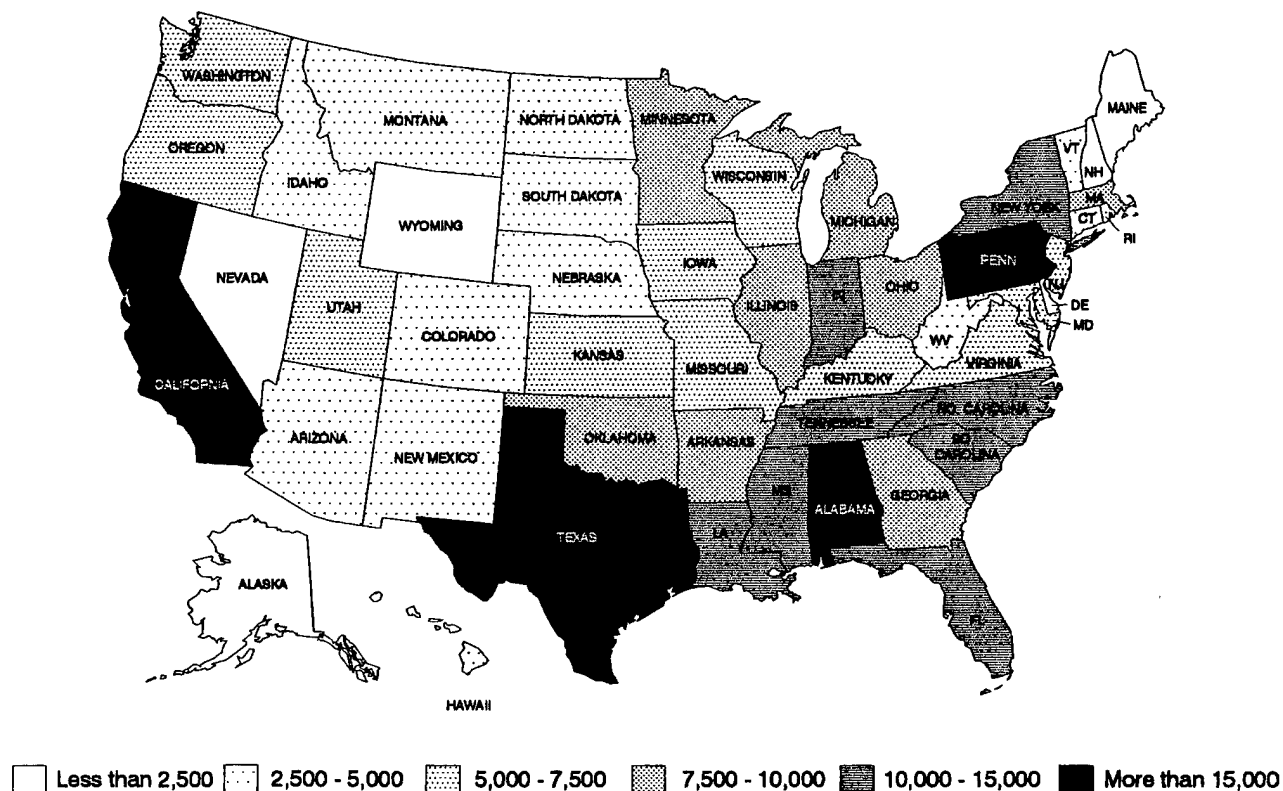
During peacetime, the primary mission of the Army National Guard is to support state and territorial governors by carrying out the full spectrum of tasks authorized in state law. Those tasks typically include defense of the state from rebellion or disorder (that is, riot control); emergency and disaster relief; humanitarian assistance, such as aeromedical evacuation; and other efforts to support the community. The demands of state missions do not determine the size of the National Guard; the ability to conduct various federal missions forms the basis for establishing the size of the entire Army, including the Guard. That being the case, the Guard may not be the correct size or configuration to carry out its most common state missions—emergency and disaster relief.

Members of the National Guard are generally called to state duty only in small numbers and for short periods of time. There are several reasons for that practice. Paying for members of the Guard on state duty is a cost over and above a state's typical operating expenses. State budgets usually provide either a small, specific annual budget for the Guard—usually less than \$10 million—or contingency funds available only under emergency conditions. As a result, Guard units are generally used in only the most extreme circumstances and only after other state and local resources are exhausted or overwhelmed. In addition, state and Guard leaders try to minimize the disruption in the civilian lives of Guard members by keeping them on state active-duty status for as short a time as possible.

For all of those reasons, members of both the Air and Army National Guard spent an average of less than one day per year on state active duty between 1987 and 1995.⁷ In 1993, the peak year for state duty during that period, no single activation required more than 6 percent of the National Guard's total strength. It is true that in 1992, 1993, and 1994, natural disasters—in-

7. Because of the way the National Guard Bureau maintains historical records, the Congressional Budget Office could not obtain data about activation rates for the Army National Guard separate from the Air National Guard. The Air National Guard is roughly one-third the size of the Army National Guard.

Figure 3.
Number of Army National Guard Personnel, by State, at the End of 1996



SOURCE: Office of the Assistant Secretary of Defense for Reserve Affairs, *Official Guard and Reserve Manpower Strengths and Statistics, FY 1996 Summary* (1997).

cluding hurricanes, severe flooding, and an earthquake—combined with isolated events such as riots in Los Angeles to call large numbers of Guard forces into action. In each of those three years, about 30,000 members of the Guard were called to state active-duty status for an average of about two weeks.

Although 30,000 people represent only a small portion of the National Guard's total strength, some domestic emergencies can strain the resources available to an individual state. In particular, during operations in Florida in 1992 after Hurricane Andrew, almost half of the state's National Guard members were on state active duty at the same time. All told, Guard support extended for more than 80 days. Although federal assets were brought in after the President declared a state of emergency, and federal funds reimbursed some state expenditures, Florida still spent almost \$29 million of its own money on tasks performed by the state National Guard in the aftermath of the hurricane.

The Army National Guard forces available to individual governors vary appreciably from state to state (see Figure 3). They range from as few as 600 soldiers in Guam to almost 18,000 in California. Of course, in cases of severe emergency, governors can ask the President to provide federal assets when state assets are overwhelmed, as occurred after Hurricane Andrew. (Presidents can call up members of the Army Reserve in such cases, but they generally choose to call on members of the active Army instead.)⁸ Thus, states can sometimes receive assistance beyond the Guard forces within their borders.

8. Members of the Army Reserve can be called up for involuntary active-duty service by the Secretary of the Army for a maximum of 15 days in any year. But because the two weeks of annual training must be counted against that total, and because the President does not typically mobilize Reservists for domestic emergencies, the 15-day limit effectively constrains the call-up of Reservists to assist in coping with state crises.

Comparing Army Forces with Requirements

Numerically speaking, the Army has enough total forces to carry out the federal and state missions assigned to it. But are those forces balanced appropriately between active and reserve soldiers and between support units and combat units? Can they respond quickly enough to crises overseas? And can the Army afford to maintain and equip them in these times of budget constraints?

One of the primary issues addressed in this study—whether the Army has the right distribution of active-duty personnel and reservists to carry out its missions—is determined not by total requirements but by how often and how quickly forces will need to deploy on specific missions. If forces must deploy frequently and with little warning, active-duty troops are preferable. If particular types of forces are rarely needed and are likely to have a long time to prepare, reserve forces are more suitable. Unfortunately, predicting the frequency of deployment or the amount of available preparation time is not easy. Nevertheless, the Army makes assumptions about those factors in planning how to carry out its federal and state missions. This chapter assesses how well those assumptions—and the requirements that arise from them—match the Army's current force structure.

Assessment of Army Forces for Two Major Regional Conflicts

In terms of scale, the most daunting Army mission is providing forces to fight two major regional conflicts that break out nearly simultaneously. As currently con-

figured, the Army has all of the combat forces and most of the support forces it needs to fight those conflicts, but it may have difficulty delivering them in a timely fashion. The reason is twofold. First, although the U.S. fleet of military transport aircraft and ships is one of the largest in the world, it would still need considerable time to carry all of the Army forces and their equipment to two distant theaters.¹ Second, the Army depends heavily on the reserve component to provide support forces for the conflicts, and reserve units may not be able to deploy in time to arrive early in the first theater, as Army planning requires.

Deployment Schedules

The Department of Defense's plans for fighting a regional conflict stress the importance of getting combat forces into the theater of operations quickly to retard the progress of a hostile invasion. In line with that strategy, the Army's power-projection requirements call for the capability to deliver a force comprising one light division and one heavy brigade to any region of the world within 15 days (see Table 4). (Heavy units include tanks and other armored vehicles; light units do not.) The Army's requirements call for two additional divisions, at least one of which would be heavy, to be delivered within 30 days. The full 5 1/3-division combat force that the Army plans to send to an MRC would arrive in theater within 75 days. That schedule would require transporting some 80,000 combat troops and their equipment (up to 6 million square feet) to a theater anywhere in the world in 75 days.

1. For more information about the U.S. military's airlift and sealift fleets, see Congressional Budget Office, *Moving U.S. Forces: Options for Strategic Mobility* (February 1997).

Table 4.
The Army's Deployment Goals for a Major Regional Conflict

Forces in Theater	Approximate Number of Troops	Deadline for Assembling Forces in Theater
Combat Forces^a		
1½ divisions (One light division, one heavy brigade)	20,000	15 days
3½ divisions (At least 1½ heavy)	70,000	30 days
5½ divisions	80,000	75 days
Support Forces^b		
Not specified	190,000	30 days
Not specified	217,000 to 250,000	90 days

SOURCE: Congressional Budget Office based on data from the Department of Defense.

NOTE: These deployment goals apply to a single conflict or the first of two conflicts. They would vary slightly for the second of two conflicts.

a. Based on the Army's power-projection requirements and timelines used in Department of Defense mobility studies.

b. Based on the Total Army Analysis 2003 and Department of Defense timelines.

Besides combat forces, the Army must deploy an even larger number of support forces to a regional conflict. According to the Total Army Analysis 2003, the Army would need more than twice as many support troops as combat troops in theater to fully prosecute a single MRC—between 217,000 and 250,000, depending on the theater.

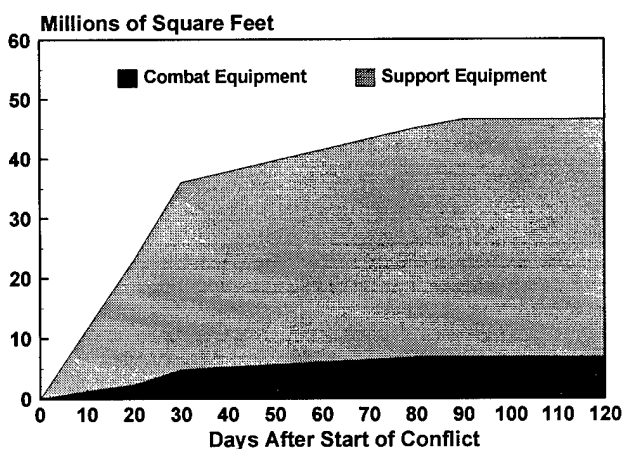
Specific timelines are classified, but publicly available delivery schedules from the Army and DoD indicate that the time allotted to building up forces in a theater ranges from 75 days to 90 days. During the Persian Gulf War, U.S. commanders had the luxury of dictating the schedule themselves. As a result, they waited until all support forces were in place before launching

counterattacks. If theater commanders wanted to do the same in future conflicts, the Army would need to have 217,000 to 250,000 support troops in theater within 90 days. Those troops—or, more specifically, their equipment—would account for most of the airlift and sealift needed to move Army forces to a conflict overseas. In the case of an MRC in Korea or the Middle East, the lift requirements for support equipment (as measured in square footage) would exceed the requirements for combat equipment by a factor of five (see Figure 4).

The Total Army Analysis 2003 specified an intermediate goal for building up forces in theater: assembling 260,000 troops (approximately 70,000 combat personnel and 190,000 support personnel) in theater within 30 days of the start of the conflict. Those 260,000 troops represent about 80 percent to 90 percent of the forces ultimately needed for a single major regional conflict.

According to Army plans, prosecuting an MRC would require deploying large numbers of reservists from both the National Guard and the Army Reserve. None of the combat forces scheduled to participate in an initial regional conflict would come from the reserves, but most of the support troops would. The reason is that the total requirement for support forces for even one MRC far exceeds the approximately 87,000

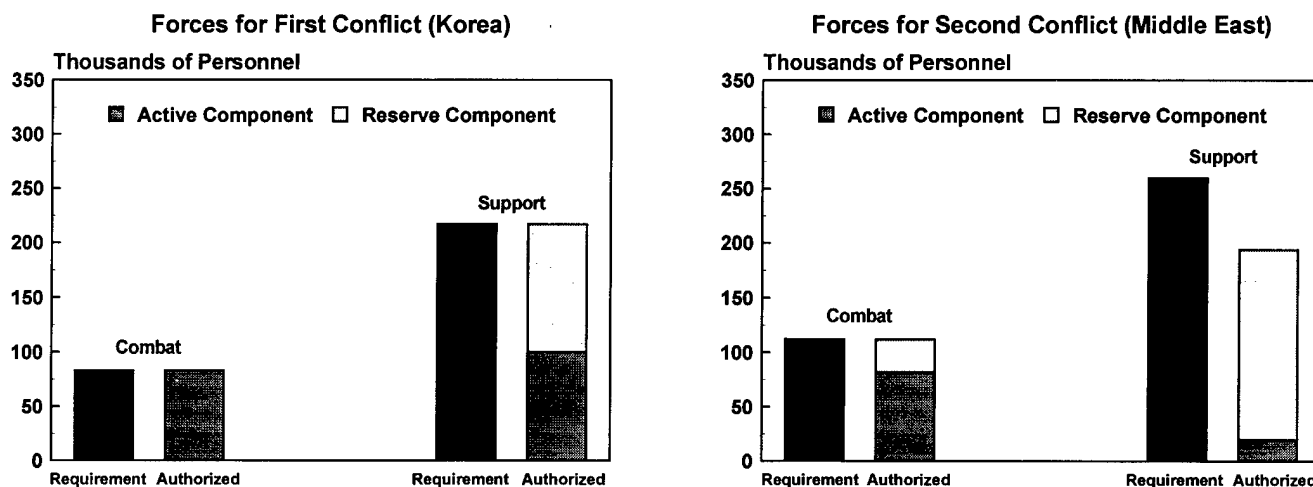
Figure 4.
Total Equipment Required in Theater for a Major Conflict in the Middle East



SOURCE: Congressional Budget Office based on the Total Army Analysis 2003 and Department of Defense timelines.

NOTE: Assumes unlimited lift capability.

Figure 5.
Army Forces Available for a Conflict in Korea Followed by a Conflict in the Middle East, Compared with Requirements



SOURCE: Congressional Budget Office based on data from the Army.

NOTE: Requirements are based on the results of the Total Army Analysis 2003.

active-duty support personnel who are readily available to take part in a major operation outside Korea.² As a consequence, the Army could need 117,000 to 140,000 reservists to support an initial MRC. They would be needed quickly if the Army was to attain its goal of assembling 260,000 troops in 30 days and the entire force in 90 days. That would require getting as many as 90,000 reservists overseas within a month and another 27,000 to 50,000 reservists there 60 days later.

In the scenario that the Administration uses to size its military forces, a second MRC breaks out in another region shortly after the United States becomes engaged in the first conflict. The variation that taxes U.S. mobility forces most is the one in which the first conflict breaks out on the Korean Peninsula and the second one in the Middle East.³ The planning assumptions that some defense analysts have used for the separation of the two conflicts range from 40 days to 45 days.

2. Besides those 87,000, an additional 13,000 active-duty support troops are permanently stationed in South Korea and could participate in a conflict if one erupted there. Another 36,000 active-duty support troops are stationed in Europe.

3. Although the order in which the conflicts occur affects the demands put on mobility forces, especially early in the conflicts, it does not significantly affect the amount of time needed to deliver all Army forces to both theaters.

For its assessment of Army forces in this analysis, the Congressional Budget Office (CBO) assumed that the first conflict would break out in Korea and the second in the Middle East 45 days later. CBO further assumed that the Army would want to deliver its forces to the second theater on the same schedule that it outlined for the first. That would mean getting two divisions to the Middle East within 15 days (including two brigades whose equipment would be permanently stored in the region), a total of four divisions in 30 days, and the full 5½ divisions within 75 days. In addition, the Total Army Analysis 2003 assumed that six combat brigades from the National Guard would be sent to the second conflict.

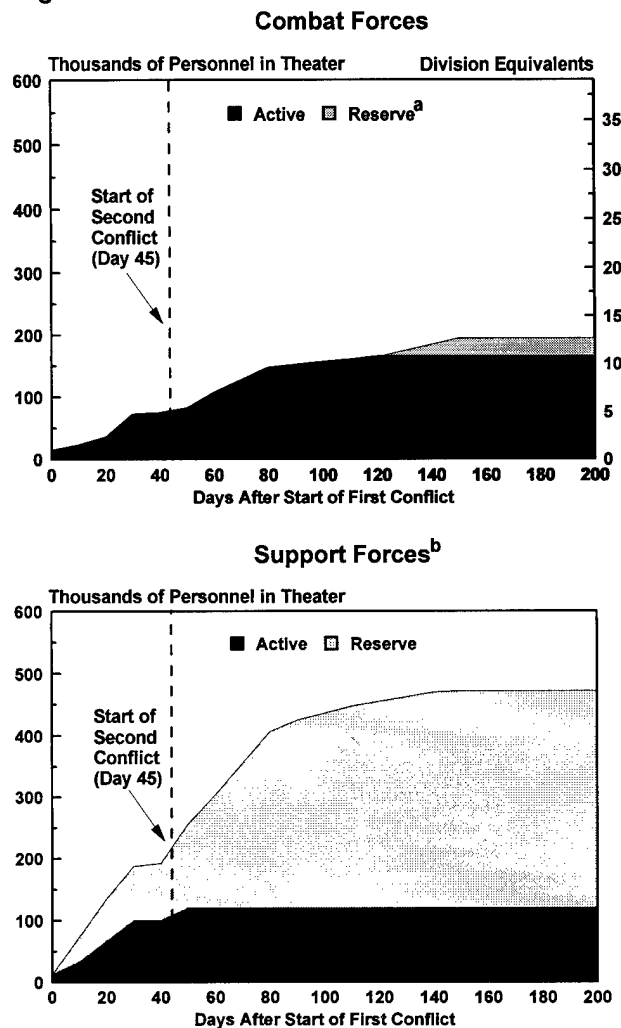
CBO also assumed that support forces for that conflict would follow a schedule similar to the one used for the first MRC: about 190,000 in theater within 30 days and all forces within 90 days. Since all of the active-duty support forces not stationed in Europe are assumed to take part in the first conflict in Korea, almost all of the support forces for the second MRC would come from the reserves (see Figure 5).

The rates of deployment that result from those delivery schedules are quite demanding. They would mean that forces for the second conflict would have to begin deploying before all forces for the first conflict

were in place. In all, for the Army to meet the schedules outlined above, it would have to deploy and deliver almost 110,000 combat troops and more than 300,000 support troops (of which around 180,000 would be reservists) plus their equipment in 60 days (see Figure 6). Thirty days later, an additional 40,000 combat forces

and 120,000 support forces would be required. And within another month (a total of 120 days from the start of the first conflict), the vast majority of the forces required for two MRCs—195,000 combat troops and 477,000 support troops—would need to be in place in Korea and the Middle East.

Figure 6.
The Army's Deployment Schedule for the Combat and Support Forces Required for Two Major Regional Conflicts



SOURCE: Congressional Budget Office estimate based on data from the Army.

NOTE: The Army's current schedule is based on the results of the Total Army Analysis 2003.

- a. Enhanced readiness brigades from the National Guard.
- b. The Army does not have enough support forces to meet this requirement.

Can the Army Meet Those Schedules?

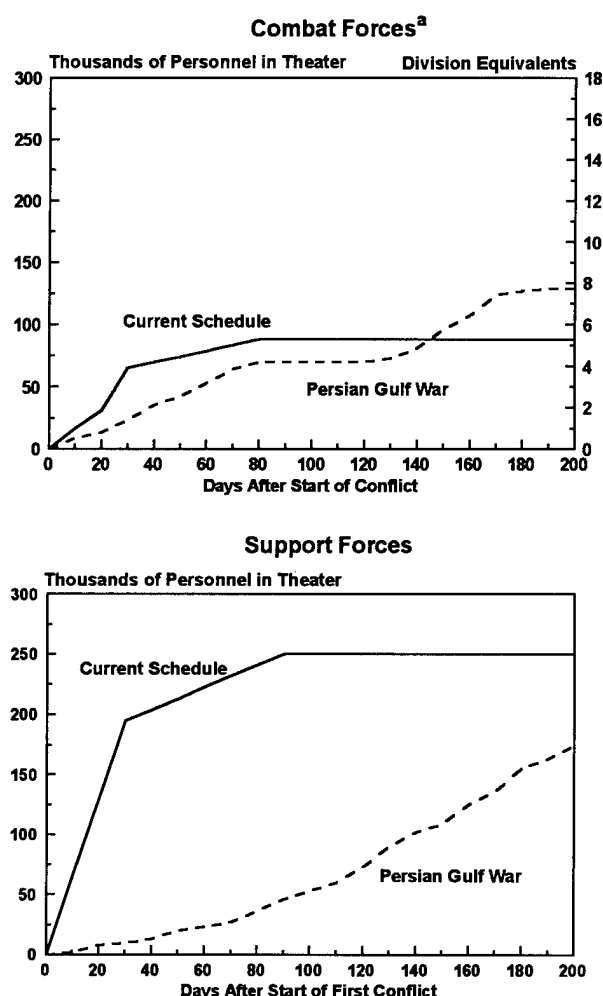
The Army may not be able to meet its ambitious timetable for assembling the forces in theater to fight two major wars at the same time. Its proposed rates of buildup—both for combat and support units—would be much more rapid than those achieved during the Persian Gulf War, the U.S. military's most recent experience in moving large forces overseas (see Figure 7). The United States may not have felt compelled to build up forces rapidly in that conflict after the first 60 days because of the diminished threat of a successful Iraqi attack. However, even the initial rates of buildup during the Gulf War do not approach those needed to meet the Army's current schedule.

Yes for Combat Forces in the First MRC. Part of the Army's proposed schedule may be achievable, however, particularly with respect to combat forces for the first conflict. As a result of U.S. experience in the Gulf War, the Administration has embarked on an ambitious program to improve the military's ability to deliver forces to distant regions. DoD is buying more transport aircraft and ships, in part with the aim of being able to meet the Army's delivery schedule for combat units (at least for one theater) by early next century. In addition, DoD plans to store (or "preposition") the equipment for two heavy combat brigades in the Middle East and equipment for one combat brigade in South Korea. That way, combat personnel can fly rather than sail to either region and meet up with their equipment, thus speeding deployment.⁴ The U.S. military also stores equipment for one heavy combat brigade on ships stationed in the Indian Ocean. Those ships are ready to sail to any trouble spot and can arrive in Korea or the Middle East in about two weeks.

4. Heavy forces usually travel overseas by ship because a transport aircraft can carry only one or two tanks at a time. Heavy brigades include 100 to 180 tanks in addition to other armored vehicles.

Prepositioning heavy combat equipment means that less equipment would have to be transported overseas to respond to a crisis. If a conflict broke out in the Middle East, the Army would need to deliver the equipment for only 4 1/3 divisions from the United States or Europe. (The rest would come from the prepositioned stores in the Middle East and the Indian Ocean.) In the

Figure 7.
The Army's Deployment Schedule for a Major Conflict in the Middle East, Compared with Deployment During the Persian Gulf War



SOURCE: Congressional Budget Office based on data from the Army and Department of Defense, *Conduct of the Persian Gulf War* (April 1992).

NOTE: The Army's current schedule is based on the results of the Total Army Analysis 2003.

a. Includes only active-duty forces.

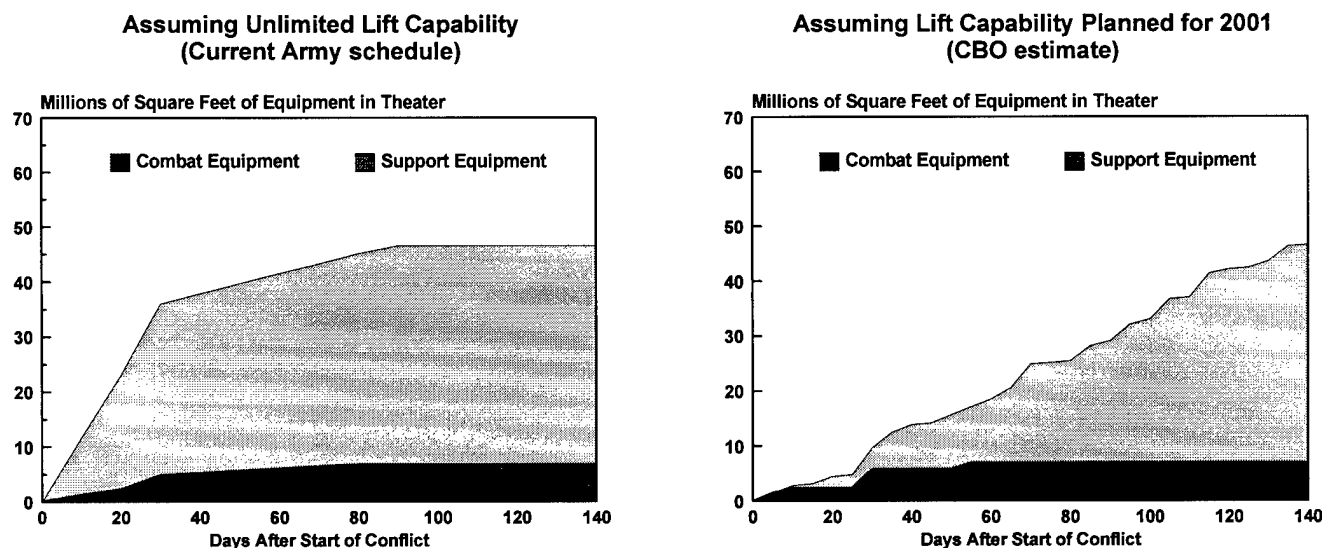
case of a Korean conflict, just four divisions' worth of equipment would have to come from the United States. (The two combat brigades stationed in South Korea and the equipment prepositioned there and in the Indian Ocean would account for the rest.) Having that equipment prepositioned would mean transporting 1.5 million fewer square feet of combat equipment to the Middle East or almost 1 million fewer square feet to Korea in the event of conflicts there. The Administration's efforts to enlarge the airlift and sealift fleets and to preposition equipment will probably allow the Army to meet its ambitious delivery schedule for combat forces for one MRC, even though that schedule envisions a buildup nearly twice as fast as during the Gulf War.

Meeting that schedule, however, depends on the presence of relatively benign conditions. For instance, it assumes that equipment stored overseas has not been captured or destroyed by the enemy or damaged by sabotage. Storage sites for that equipment are located in friendly countries and are guarded by security personnel, but they are not invulnerable to attack. In addition, any damage to port or airfield facilities would retard the United States' ability to build up forces overseas. Finally, transport ships and aircraft en route to their destinations could be targets for enemy attack. Although no such attacks occurred during the Gulf War, they are certainly possible during any future conflict and present a real threat to the ability of the United States to deploy forces as quickly as it would like.

No for Support Forces in the First MRC. Even if the Army can meet its timetable for delivering combat equipment to a major conflict, it is unlikely to do so for support equipment. As Figure 4 showed, the forces that the Army would deploy to an MRC include at least five times as much support equipment (by square footage) as combat equipment. Thus, support units contribute significantly more to the Army's total lift requirements than combat units do.

DoD officials do not believe that the Army can meet its stringent timetable for support forces because of lift constraints. CBO's analysis supports that view. Based on the airlift and sealift capability likely to be available in 2001, CBO estimated how long it might take to deliver all of the equipment the Army says it needs to fight conflicts in Korea or the Middle East. (See the appendix for more information about how CBO made its estimates.) For a single conflict, deploy-

Figure 8.
Estimated Schedule for Delivering Equipment to a Major Conflict in the Middle East
Under Varying Assumptions About Lift



SOURCE: Congressional Budget Office based on data from the Department of Defense.

ing 260,000 combat and support troops and their equipment to Korea or the Middle East would take 90 to 100 days, CBO estimated. Deploying all of the necessary forces would require 110 days for Korea or 140 days for the Middle East. Thus, although all Army forces would be in place in Korea not too long after DoD's goal of 90 days, deliveries to the Middle East would take more than a month longer because of lift constraints. Assuming (as CBO did) that combat equipment receives priority, those delays mean that the buildup of support forces in theater would not proceed as rapidly as the Army's schedule envisions (see Figure 8).

No for the Second MRC. Lift constraints would have an even more profound impact on the deployment of forces for two nearly simultaneous regional conflicts. CBO assumed that the second MRC would start 45 days after the first—well before all forces were delivered to the first theater. Delivering combat forces as quickly as possible after a conflict erupts is critical to halt any further progress by an aggressor. Thus, during the first 30 days of the second conflict, ships and aircraft would be needed to transport the equipment for $2\frac{2}{3}$ divisions to the second theater. Those deliveries, plus the equipment already stored in Korea or the Middle East, would ensure that the Army could meet its goal of having $3\frac{1}{3}$ divisions in theater within 30 days.

However, diverting lift assets to the second theater would slow down the buildup of forces for the first MRC. According to CBO's analysis, that delay could be as long as 30 days. As a result, the buildup of forces in the first theater (assumed in this analysis to be Korea) could take 140 days to complete rather than the 110 days it would take if there was only one conflict, or the 90 days in DoD's schedule (see Figure 9).

The need to finish deliveries to the first theater could in turn postpone completion of the buildup for the second MRC. If, after three divisions were in place in the second theater, priority was shifted back to finishing the buildup for the first conflict, completing delivery of the $5\frac{1}{3}$ divisions' worth of combat forces for the second conflict could end up taking more than 100 days from the start of that conflict. Such a delay would put the combat force more than a month behind schedule.⁵ Buildup of the entire force would be similarly delayed. In all, 195 days—more than six months—could

5. Those results are based on the assumption that the presence of three combat divisions in the second theater would be sufficient to halt an aggressor's attack and that military commanders would prefer to complete the buildup of support forces in the first theater before delivering additional combat forces to the second theater. The commanders in chief of the two theaters and the national command authorities would be responsible for setting priorities for the use of airlift and sealift. Decisions that differed from CBO's assumptions would yield different delivery schedules and could result in a more rapid delivery of combat forces to the second theater.

elapse from the start of the second MRC before all forces, including the six reinforcing combat brigades from the National Guard, would be in theater.

The magnitude of those delays raises questions about the Army's planning assumptions. Although they are similar to delays experienced during the Persian Gulf War, they run counter to the Administration's desire to build up forces more quickly in the future and to not give an opponent the luxury of long periods when U.S. troops could be vulnerable to attack. The sheer volume of Army equipment that would have to be transported overseas makes it unlikely that those delays could be significantly reduced, despite the Administration's planned investment in airlift, sealift, and prepositioned equipment.

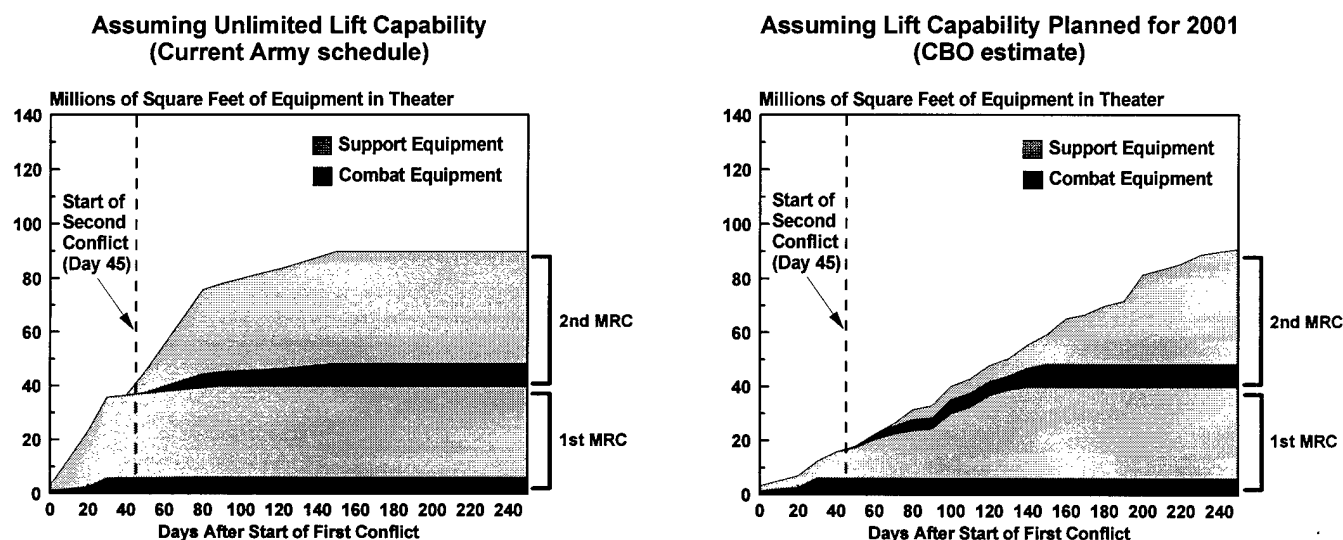
The delays have one potential benefit, however: they could give the Army an opportunity to use some less ready units in major conflicts. Since lift constraints would significantly slow deliveries to the second MRC, the Army could consider using reserve combat units—which take longer than active forces to prepare for battle—to help prosecute that conflict. In addition, limits on the availability of airlift and sealift would to some extent reduce the urgency for mobilizing and deploying reserve support units.

Access to Reserve Units

The Army's deployment schedule would require mobilizing, activating, training, and transporting hundreds of units from the reserve component in a very short time. To provide sufficient support forces for an initial MRC, the Army would, according to its own schedule, have to deploy as many as 90,000 reservists overseas within 30 days. However, as the preceding discussion demonstrated, limits on lift capability render the Army's schedule for support forces unworkable.

CBO's estimated deployment schedule for reserve support units, which is based on the ability of U.S. lift assets to transport Army equipment, represents a much slower—and more realistic—rate of deployment than the schedule assumed in the Total Army Analysis 2003 (see Figure 10). Because lift would not be available sooner, CBO estimates that it would probably take at least 90 days to assemble the 90,000 reservists and their equipment in theater. Delivering all of the reserve units needed to support one MRC (including as many as 140,000 reserve personnel) could take up to 140 days from the start of the conflict.

Figure 9.
Estimated Schedule for Delivering Equipment to Two Major Regional Conflicts
Under Varying Assumptions About Lift



SOURCE: Congressional Budget Office based on data from the Department of Defense.

NOTE: MRC = major regional conflict.

Although that slower buildup of reserve units is undoubtedly more realistic than the one the TAA-03 called for, it is still much more ambitious than the buildup achieved during the Persian Gulf War. Then, support units that included a total of about 73,000 reservists were not assembled in theater until about 200 days after Operation Desert Shield began.

The Army and the Administration have made several changes since the 1991 war that could accelerate the availability of reserve forces for a major conflict. During Operation Desert Shield, a delay of two weeks ensued between the deployment of the first Army forces to the Middle East and the initial call-up of reservists to support the operation. Although it is impossible to predict how quickly reservists would be mobilized in a future conflict, legislation enacted since the Persian Gulf War has made partial mobilization more flexible. As a result, calling up reservists to take part in relatively small contingencies, such as peacekeeping operations in Bosnia, has become more routine. The next time reservists are needed in large numbers to support a major operation, less delay may occur between the initial deployment of active-duty troops and the mobilization of reservists.

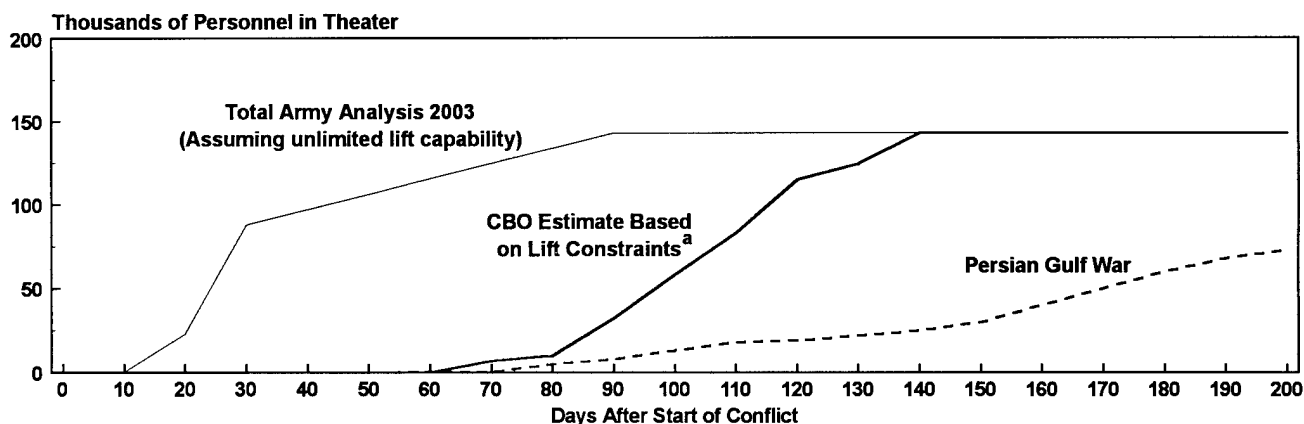
Another factor that slowed down the deployment of reserve units to the Persian Gulf War was the process

of identifying and federalizing specific reserve support units to take part. During the war, the Army and its commanders in the field identified on an ad hoc basis what types of units were needed to further the campaign. The initial mobilization order covered 25,000 Army reservists, but the first activation called up only 31 units (less than 1,000 Guard and Reserve personnel) for deployment to the Middle East. Additional activations of up to 120 units for deployment occurred every few days for the duration of the war. In the end, more than 700 reserve units were deployed to the region.

Upon activation, the members of each unit (which ranged in size from two to 740 soldiers) would assemble at their mobilization station, complete their paperwork, train, and ready their equipment for shipment to the Persian Gulf. Unit equipment generally was transported by ship, and personnel would fly over to meet up with it when it arrived in port in the Middle East. The whole process, from unit activation to arrival in theater, took an average of 34 days (although some very small units took less than 10 days, and some larger units required more than two months after activation to arrive in theater).

That deployment process could have been accelerated if the Army had identified the units it might need for such a conflict beforehand. In addition, activating

Figure 10.
Estimated Deployment Schedules for Reserve Support Forces for a Major Conflict in the Middle East



SOURCE: Congressional Budget Office based on data from the Department of Defense.

a. Assumes active forces are deployed before reserve forces.

those units quickly rather than over a period of almost six months would have made a significant difference. If the President had mobilized large numbers of reservists at the same time that he first deployed U.S. forces to the Middle East, if all 700 reserve units sent to the Gulf had been activated at the same time, and if enough lift had been available, virtually all of those units could have been mobilized, deployed, and transported in about 70 days rather than the 200 days actually required.

Since the war, the Army has identified hundreds of Guard and Reserve units that would be needed to support an MRC and has designated them as part of its Force Support Package. Those units are supposed to be maintained at a high state of readiness, allowing them to depart after call-up in 42 days or less. (Some small units can theoretically embark immediately.) Those units—with a total of about 75,000 troops—would form the initial set of reserve support forces that the Army would deploy to a major regional conflict.

In all, the Army would need to mobilize, prepare, and transport up to 140,000 reservists and their equipment in less than five months for one MRC if it was to deploy them as quickly as the available airlift and sealift allow. No historical precedent exists to establish whether that is feasible. In fact, experience during the Gulf War would argue against such a massive and rapid deployment. However, the recent steps to make the reserve component more accessible for operations that do not require total mobilization might allow the Army to meet that goal.

An even more daunting task would be assembling as many as 90,000 reserve support personnel in 30 days, as the Army's schedule dictates. Even if lift constraints stretched out that schedule by another 60 days, as CBO estimates, the requirements for getting so many reservists overseas in that amount of time—immediate mobilization of tens of thousands of people and activation of hundreds of separate units—are so stringent as to make the Army's plan for reserve forces appear overly optimistic to some analysts.

Assessment of Army Forces for Lesser Contingencies and Overseas Presence

In terms of overall numbers, the Army has plenty of forces to carry out such lesser contingencies as small-scale combat operations, humanitarian aid missions, and peacekeeping. During the past decade, those types of operations have typically required deploying less than 5 percent of the active-duty Army overseas at any one time. However, all recent Army deployments of note have included some reserve personnel. That reliance on reserves, although standard DoD policy, can impose various costs.

The Army uses reservists for nearly all operations because some types of support units are found exclusively or primarily in the reserve component. For example, all water-supply battalions and prisoner-of-war brigades are in the reserves, as are 97 percent of the Army's civil affairs units and 86 percent of its petroleum-supply battalions. Because so many critical support functions are performed solely by reserve personnel, recent U.S. operations in Panama, Haiti, and Bosnia (which each involved no more than 20,000 troops) included increasingly large numbers of reservists. About 500 reservists participated in Operation Just Cause in Panama in 1989, roughly 1,000 reservists went to Haiti in 1994, and at times more than 4,000 reserve personnel have supported ongoing operations in Bosnia.⁶

Another reason that the Army has stepped up its use of reservists in small operations is the Administration's renewed emphasis on integrating the reserves into all military activities. That practice has its roots in DoD's Total Force Policy, which was adopted in 1973. Then Secretary of Defense James Schlesinger told the services that the goal of the policy was to integrate "the active, Guard, and Reserve forces into a homogeneous whole."⁷ The current Defense Secretary has upheld the

6. The majority of reservists deployed to Europe to support operations in Bosnia have been stationed in Germany.

7. Reserve Forces Policy Board, *Total Force 2010, a Symposium to Address the Total Force Establishment in the 21st Century: Final Report* (January 3, 1997), p. 7.

Total Force Policy, saying that the reserve components "are essential participants in the full spectrum of operations, from the smallest of small-scale contingency operations to major theater war."⁸ The Administration believes that using reservists in small-scale operations not only provides unique skills to such operations but also helps relieve active-duty units of some of their peacetime commitments. As a result, active units have to spend less time deployed overseas in peacetime and can concentrate on higher-priority tasks.

Activating and deploying reservists for small operations incurs both monetary and nonmonetary costs, however. According to Administration estimates, the Army spent approximately \$40 million in 1995 to pay reservists activated for federal duty other than training. In 1996, that figure may have been as high as \$120 million because of U.S. operations in Bosnia. Although such costs are small compared with the Army's overall budget, they represent extra expenses beyond the ordinary costs of operating and supporting the reserve component.

On the nonmonetary side, frequent activation and deployment of reservists could take a toll on employers' willingness to hire them. By law, reservists are guaranteed job protection during voluntary or involuntary service in both war and peacetime. They can notify their employer of the imminent need to leave on service either orally or in writing. And reservists cannot be forced to use vacation time to perform military service. Those protections apply to absences for routine training as well as to call-up for deployments such as the Persian Gulf War or operations in Bosnia.

The Department of Defense has conducted surveys of employers to determine whether their attitudes have been affected by the growing use of reservists in recent years. Those surveys seem to show that employers are willing to support infrequent loss of their workers for short periods, typically up to a month. However, they are generally more supportive when reservists are absent to assist in local disaster-relief efforts than for overseas operations. Moreover, deployment of entire reserve units—which typically contain personnel from a limited geographic area—could include several employees of the same company. In that situation, losing mul-

iple employees for an extended period could have a significant impact on a business, particularly a small one. To discourage any erosion of support, DoD has sent letters signed by the Secretary of Defense to many employers explaining the important contributions that reservists make to national security.

More frequent activations and longer deployments during peacetime could also have a negative impact on retention and recruitment in the reserves. DoD has not reported any broad evidence of that occurring, but it has had some problems recruiting and retaining doctors for the Army Reserve.

No similar problems arise in the Army's other main federal mission—providing overseas presence during peacetime—because it does not require reserve personnel. The 91,000 Army troops permanently stationed in Europe and South Korea are all active-duty soldiers. Moreover, their number is relatively small (less than 30 percent of the deployable active Army) and has been declining over the past decade. And although this mission ties up a considerable portion of the active Army's forces, it places them in areas of the world where the Administration believes they are best able to protect U.S. interests abroad. Based on its current force structure and requirements, the Army should have no trouble carrying out the mission to maintain overseas presence in coming years.

Assessment of National Guard Forces for State Missions

The size of the Army National Guard, as determined by the force requirements for federal missions, should be more than adequate to meet the needs of governors for state missions. A study by RAND found that between 1987 and 1993, no single activation of the Guard (including both the Air and Army Guard) required more than 6 percent of its total personnel.⁹ In some states, however, the resources of individual Air and Army Guards were occasionally overwhelmed, as occurred in

8. Secretary of Defense William S. Cohen, *Report of the Quadrennial Defense Review* (May 1997), p. 32.

9. Roger Allen Brown, William Fedorochko Jr., and John F. Schank, *Assessing the State and Federal Missions of the National Guard* (Santa Monica, Calif.: RAND, 1995).

Florida in August and September 1992 after Hurricane Andrew.

Such occurrences raise concern among National Guard officials when they consider the unlikely but possible scenario that states will need Guard troops to assist in domestic emergencies at the same time that the United States is participating in two major regional conflicts. According to Army plans, many of the Guard's deployable forces would be involved in such conflicts and therefore would be unavailable to aid state governors. However, RAND found that almost half of the current personnel in the Army National Guard are not slated to deploy to either of two MRCs, so they could assist in domestic emergencies.

Thus, although force levels in individual states may on occasion be inadequate to deal with particularly demanding domestic crises (without additional assistance from other states or the federal government), the forces of the Army National Guard as a whole are more than sufficient to fulfill their state missions. As a result, RAND concluded that federal missions—rather than state disaster- or emergency-response requirements—should continue to be the primary factor determining the force structure of the Guard.

Overall Assessment of the Army's Structure

When measured against such criteria as the balance between combat and support forces, the mix of active and reserve units, the ability to respond quickly, and affordability, the Army's force structure contains four possible areas of concern. The first is the overabundance of combat forces, which is partly a legacy of the Cold War. Approximately half of the Army's combat troops are in the National Guard, and the vast majority of them do not have a direct combat role in either of two major regional conflicts. In 1995, the Commission on Roles and Missions concluded that the Army contains 110,000 excess combat troops. Although those forces may provide a strategic hedge against the emergence of an unforeseen threat, the expense of operating, supporting, and equipping them may not be justifiable in times of tight budgets.

Second, the Army does not have enough support forces to meet its own requirements. That shortage results in part because the service says it needs almost two and a half support soldiers (those not assigned to combat divisions and brigades) for each combat soldier. Thus, it would need 477,000 personnel to support the 195,000 combat troops slated to be involved in two MRCs. Such high support requirements derive from the Army's desire to minimize the risk associated with fighting two major regional conflicts at the same time.

By its latest estimate, however, the Army has just 418,600 of the necessary support personnel in its deployable forces—a shortage of 58,400. Furthermore, only about one-third of those personnel are in the active component. That means the vast majority of soldiers needed to support the Army in two MRCs would come from the reserve component. Even for the first conflict, most of the support forces would come from the reserves, and some of them would be needed overseas in short order.

Third, the huge level of support troops required by Army doctrine creates the need for large amounts of lift to transport forces overseas. In the event of just one major regional conflict, delivering the Army's combat and support forces could take more than four months (based on the transport aircraft and ships that DoD plans to have in its fleet shortly after the turn of the century). In the case of two nearly simultaneous MRCs, assembling all of the forces the Army considers necessary in the second theater could take more than six months from the beginning of the second conflict. Those delivery times are much longer than the Administration's optimal schedules.

Fourth, the Army's current structure is expensive to operate, support, and equip. As a result, it is becoming increasingly unaffordable. Several defense experts and Administration officials have expressed doubt that the Army can retain the current force structure and equip it with modern weapons if the service's budget remains at the level of recent years. The Army is planning at least two major weapons programs that together will require it to spend an additional \$2 billion a year on weapons purchases beginning in 2005. At the same time, it is spending more than \$1 billion each year for combat forces that some analysts consider unnecessary. If the Army does not reduce its force structure and its total

budget does not increase, some analysts have argued, the service will not be able to equip its forces adequately.

In contrast to those four areas of concern, the Army appears to have enough forces in the National Guard to provide state and territorial governors with militias for their domestic needs. Although individual disasters or emergencies might occasionally overwhelm the assets

of a particular state or territory, those occurrences are rare. In such instances, governors can call on the federal government for assistance, which has been provided in the past. Even in the event of two MRCs—which would require large numbers of National Guard troops to deploy overseas—almost half of the Guard would remain at home. That residual should be sufficient to meet domestic requirements, even though some states could be left with fairly small Guard contingents.

Alternatives for Meeting the Army's Force Requirements

The Army's current force structure is expensive to maintain, requires a great many support personnel and lift assets to deploy overseas, and suffers from an imbalance between combat and support units. The Army plans to partially rectify that imbalance by converting some combat forces to support forces. However, its plan would not reduce the need for large numbers of support personnel or make the force structure significantly cheaper to maintain and equip.

The Congressional Budget Office investigated ways that the Army could address some of its current problems by changing its force structure more drastically than the Army's plan envisions (see Table 5). One way to do that would be to rely more on allied governments and civilian contractors to provide support for U.S. combat forces arriving in their country (Alternative I in this analysis). With such host-nation support, the Army could reduce the amount of equipment it would have to ship overseas in the event of a conflict. Another approach (Alternative II) would create additional support forces in the active Army, thereby reducing the Army's reliance on reserve support units early in a major regional conflict or for lesser contingencies in peacetime. Finally, the Army could lower its costs by eliminating some combat forces from the active component and relying more on existing combat units in the National Guard to fight a second MRC (the approach taken in Alternative IV). Of course, more than one of those approaches could be pursued simultaneously; for example, Alternative III in this analysis is a combination of the first two options.

CBO's four alternatives focus on solving the Army's shortage of support forces. But given current constraints on the Army's budget, none of the alternatives would increase the size of any of the three organizations within the Army (active, Guard, and Reserve).

CBO compared the alternatives based on such measures as the availability of forces to carry out the Army's federal and state missions, how quickly those forces could perform their missions, and how the risks and costs of each alternative compare with those of the current Army (see Table 6). For options that would reduce the size of the Army's force structure (Alternatives I, III, and IV), CBO estimated the savings that would result both directly and indirectly from those cuts. Direct savings come from avoiding the costs to operate and support the deployable forces that would be eliminated. Indirect savings come from reductions in the Army's infrastructure that might be possible because of the cuts in force structure. In other words, indirect savings reflect the potentially reduced need for medical support, training, repair facilities, and other support services associated with a smaller Army. As such, they reflect cuts in the number of both Army civilians and nondeploying forces.

These alternatives are not exhaustive. The Army could meet its force requirements in other ways, such as converting some of its institutional (nondeploying) forces to deployable support troops. But CBO had no way to evaluate the impact of such a reduction in the Army's infrastructure, so it did not investigate ap-

Table 5.
Changes in Force Structure Under the Army's Plan and Four Alternatives

Option	Changes in Force Structure
Army's Plan: Reconfigure the National Guard	<ul style="list-style-type: none"> o Convert 12 Guard combat brigades to support units
Alternative I: Increase Reliance on Host-Nation Support and Civilian Contractors	<ul style="list-style-type: none"> o Eliminate four Guard combat divisions o Rely on host nations and civilian contractors for the equivalent of 62,000 Army support troops in two major regional conflicts
Alternative II: Create Additional Support Forces in the Active Army	<ul style="list-style-type: none"> o Convert two active-duty heavy divisions and one Guard combat division to support units
Alternative III: Combine Alternatives I and II	<ul style="list-style-type: none"> o Convert two active-duty heavy divisions to support units o Eliminate four Guard combat divisions o Cut 35,000 support troops from the reserve component o Rely on host nations and civilian contractors for the equivalent of 62,000 Army support troops in two major regional conflicts
Alternative IV: Rely More Heavily on the Reserves to Fight a Second Major Regional Conflict	<ul style="list-style-type: none"> o Eliminate three active-duty divisions (two heavy and one light) and four Guard combat divisions o Rely on host nations and civilian contractors for the equivalent of 62,000 Army support troops in two major regional conflicts

SOURCE: Congressional Budget Office.

NOTE: None of CBO's alternatives would carry out the Army's planned conversion of 12 Guard combat brigades to support units.

proaches that would shrink the institutional Army in order to create more deployable units. Rather, CBO confined its analysis to changes in the Army's deployable active and reserve forces.

The Army's Plan

In the next decade or so, the Army plans to reorganize some combat units in the National Guard into support units as well as continue to reduce the number of personnel in all three Army organizations. The Guard reconfiguration is designed to address the shortage of support troops identified by the Total Army Analysis

2003. The personnel cuts were recommended by the Quadrennial Defense Review.

National Guard Reconfiguration

The Army plans to create more deployable support forces for overseas conflicts by converting 12 Guard combat brigades into combat-support and combat-service-support units. That reorganization would create 42,700 support forces in the National Guard from an equal number of combat forces (see Table 6). The new support units would be organized into six support brigades and two support divisions. After the conversion, the Guard would retain eight divisions, although only six of them would be traditional combat divisions.

The conversion would mean a drastic change in mission, equipment, and training for many of the units involved. For example, units with a combat mission, such as tank companies, would be converted to units with a support mission, such as truck companies. In the process, a tank company would trade in its 14 tanks for various kinds of trucks, and its soldiers would have to learn to drive trucks and deliver petroleum products or other supplies rather than find and attack an enemy. In converting 12 Guard brigades, the Army is planning to inactivate some 600 tanks, 1,300 armored personnel carriers, 50 attack helicopters, and 260 howitzers. In their place, it plans to buy almost 7,000 medium-sized and heavy trucks to equip the new units.

Carrying out the reorganization would require significant funds and time. According to the Army, the total cost to convert the 12 combat brigades to support units would be almost \$3 billion. The bulk of that (\$2.5 billion) would be spent on equipment—primarily trucks—for the new units. Another \$350 million would go for new facilities and for training the combat soldiers for their new support roles. The Army plans to complete the conversion by 2009. But if \$400 million is not available each year to buy trucks and carry out the plan, converting all 12 brigades could take longer.

The reconfiguration of Guard units would alleviate, but not eliminate, the Army's shortage of support forces for two MRCs. The Total Army Analysis 2003 identified a shortage of 58,400 support spaces in the Army, but the planned reconfiguration would create about 42,700 support spaces—leaving a shortfall of 15,700. Support from host nations, based on the Army's estimate, could reduce that shortfall to 1,000. But the Army is reluctant to rely heavily on the availability of such support in the absence of formal signed agreements with host nations.

Similarly, the Guard reorganization would reduce, but not eradicate, the Army's oversupply of combat forces (see Figure 11 on page 32). Converting 42,700 combat troops would still leave the service with many excess combat forces. However, the Army's plan would eliminate some of the Guard combat forces that have been identified as having no direct role to play in current warfighting plans.

Recommendations of the Quadrennial Defense Review

In May 1997, Defense Secretary William Cohen recommended further changes to the Army in his report on the Quadrennial Defense Review (QDR). Besides reorganizing 12 Guard combat brigades into support brigades, he recommended cutting the active component by 15,000 personnel and the reserve component by 45,000 personnel. Cohen's report contained only a few details about when or where those reductions would be made. It advocated retaining all of the combat units in the active Army, but it was not specific about how many of the Guard's 30 combat brigades (the number that would remain after the planned reorganization) should be retained. Furthermore, the report did not specify whether the active and reserve personnel cuts would come from deployable or institutional forces, or how the reserve cuts would be distributed between the Guard and the Army Reserve.

Subsequent press articles and an agreement between the Army's three organizations about how to carry out some of the reductions have provided additional details. The active Army will make its 15,000-person cut (from the force's 1997 authorized size of 495,000) at the rate of 5,000 soldiers per year in 1997, 1998, and 1999. The resulting active-duty force will have 480,000 personnel (see Table 7 on page 33). On the reserve side, the Army National Guard will lose more than 17,000 soldiers by 2000, shrinking to 350,000 people. And the Army Reserve will be cut by 3,000 soldiers in 2000, for a total of 205,000 personnel.

The Army plans to cut the other 25,000 people from the reserve component by 2002, but how that cut would be distributed between the Guard and the Reserve was not spelled out in the agreement that the three organizations reached. However, press reports indicate that the Guard would bear the brunt, losing an extra 21,000 personnel to the Reserve's 4,000. If that happened, the Guard would number 329,000 soldiers by 2002 and the Reserve 201,000.

Reductions of that size could yield significant savings when complete. All told, the Army could save \$1.6 billion a year in personnel costs alone (pay and benefits). If it eliminated entire units from its force structure as well as personnel, the Army could realize additional savings in the costs to operate and maintain its forces.

Although the Army has agreed on how many people to cut, it has not yet decided where in its force structure to make the reductions. The Quadrennial Defense

Review specified that the active Army would keep all 10 of its divisions. The Guard, too, would retain its current eight divisions, though not all would be combat divisions. Some press reports have suggested that the Army is looking at converting seven of the Guard's heavy divisions into light divisions. Such a conversion could eliminate almost 34,000 combat soldiers from the Guard, according to press reports. If the remaining personnel cuts (the 15,000 active-duty troops, another 4,000 soldiers from the Guard, and a total of 7,000 Army Reserve troops) were distributed among the

Table 6.
Effect of the Army's Plan and Four Alternatives on Annual Costs, Deployment Times, and Number of Forces

	Army in 1998	Army's Plan ^a	Alternatives			
			I	II	III	IV
Average Annual Savings or Costs (-) (Millions of 1997 dollars)						
1998-2010						
Direct savings	n.a.	-200 to -400	700	-200	850	2,500
Total savings	n.a.	-200 to -400	1,200	-200	1,550	4,500
After 2010						
Direct savings	n.a.	0 ^b	800	100 ^b	1,300	2,950
Total savings	n.a.	0 ^b	1,400	100 ^b	2,150	5,250
Deployment Time^c (Days after start of first conflict)						
First Theater	130	130	120	130	120	120
Second Theater ^d	200	230	200	230	200	200
Combat Forces from the Guard Needed for the Second Conflict^e						
Combat Brigades	0	0	0	6	6	9
Assumed Extent of Host-Nation Support						
Soldier Equivalents	15,000	15,000	62,000	10,000	62,000	62,000

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

a. Does not include personnel cuts recommended by the Quadrennial Defense Review.

b. Some small savings in operation and maintenance costs may result from converting combat units to support units.

c. Time required to deliver all troops and equipment needed to fight each of two major regional conflicts.

Army's institutional, combat, and support forces roughly in proportion to the current distribution of those forces within each organization, then 5,000 combat troops would be eliminated from the active Army. Thus, carrying out the recommendations of the Quadrennial Defense Review could cost the Army some 39,000 active and Guard combat soldiers. When combined with the combat forces that would be lost through the Army's planned reconfiguration of Guard combat units to support units, the service could face a total cut in combat forces of 81,700 personnel.

If the personnel reductions of the QDR were distributed as outlined above, they would greatly reduce the number of excess combat forces in the Army (see Figure 11). However, they would also reduce the number of support forces by 12,000. Such a reduction would exacerbate the shortage of support forces identified in the Total Army Analysis 2003, which the Guard reconfiguration is designed to address.

Since the Army has not stated definitively how or where it will make the QDR cuts, evaluating their im-

Table 6.
Continued

	Army in 1998	Army's Plan ^a	Alternatives			
			I	II	III	IV
Changes in Deployable Forces						
Active Component						
Combat divisions	n.a.	0	0	-2	-2	-3
Combat personnel	n.a.	0	0	-33,000	-33,000	-44,000
Support personnel	n.a.	0	0	33,000	33,000	0
Reserve Component						
Combat divisions (Guard)	n.a.	-4 ^f	-4	-1	-4	-4
Combat personnel (Guard)	n.a.	-42,700	-58,300	-15,000	-58,300	-58,300
Support personnel (Guard and Reserve)	n.a.	42,700	0	15,000	-35,000	0
Total Force Structure						
Combat Divisions						
Active component	10	10	10	8	8	7
Reserve component (Guard)	8	6 ^g	4	7	4	4
Deployable Support Forces						
Active component	136,000	136,000	136,000	169,000	169,000	136,000
Reserve component	291,000	333,700	291,000	306,000	256,000	291,000
Total Personnel						
Active Army	495,000	495,000	495,000	495,000	495,000	430,300
Army National Guard	367,000	367,000	305,000	367,000	287,100	305,000
Army Reserve	208,000	208,000	208,000	208,000	189,600	208,000

d. Assumes the second conflict begins 45 days after the first.

e. To form the equivalent of 5½ divisions.

f. Two divisions and six separate brigades.

g. Although the Army's plan would retain six combat divisions in the National Guard, it would reduce the number of separate brigades from 18 to 12, an additional reduction equivalent to two combat divisions.

pact is difficult. In addition, the proposed personnel reductions must be endorsed by the Congress, so their fate is uncertain. Without additional specific knowledge about their disposition, CBO cannot use the proposed reductions as a basis for comparing alternative approaches. Thus, subsequent discussions of the Army's plan in this chapter exclude the personnel cuts recommended by the Quadrennial Defense Review.

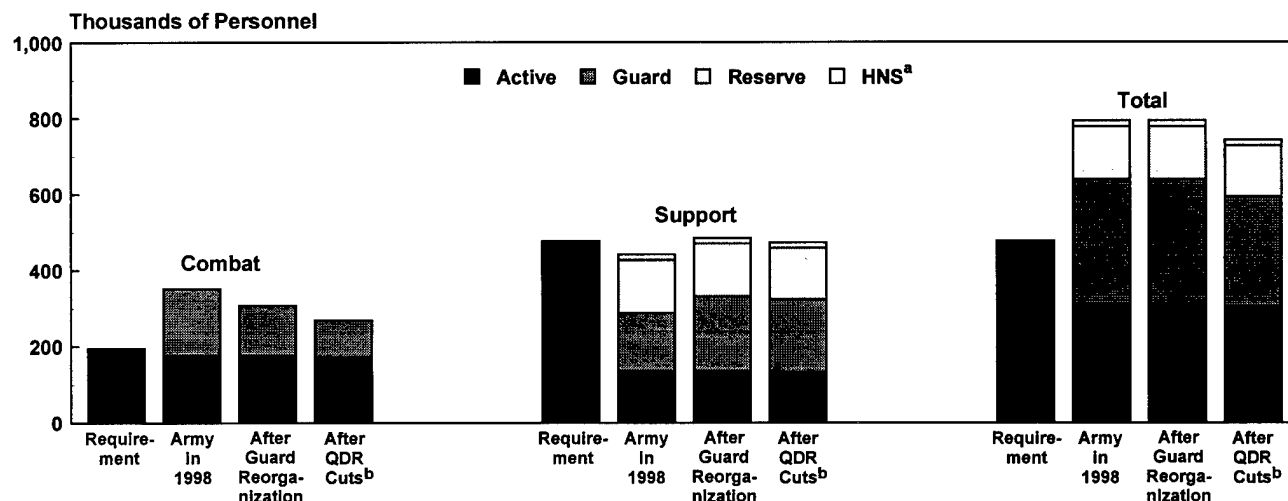
Assessment of the Army's Plan

The Army's plan to reorganize the National Guard would not address many of the concerns with the current force structure identified in the previous chapter. Specifically, it would not reduce the Army's need for large numbers of support forces to accompany its combat forces. Thus, it would not lessen the Army's need to transport hundreds of shiploads of equipment overseas to fight major regional conflicts or the resulting

long delays associated with building up forces to fight those conflicts. Nor would creating more support units in the Guard lessen the Army's dependence on the reserve component to provide support forces relatively early in an MRC or during peacetime operations. In fact, the percentage of total support forces in the reserves would rise slightly after the restructuring.

Moreover, the Army's plan (excluding the personnel cuts recommended by the QDR) would not reduce the cost of equipping and maintaining the Army, at least not for the next decade. Although the Guard's new support units might ultimately be a bit cheaper to maintain and equip than the combat units they would replace, converting them would cost almost \$3 billion. Overall, the plan to reorganize Guard combat units into support units would address only a small subset of the concerns about the current Army that CBO has identified.

Figure 11.
Army Forces Available for Two MRCs After Reorganizing the National Guard and Making Cuts Recommended by the Quadrennial Defense Review



SOURCE: Congressional Budget Office based on data from the Army.

NOTES: This figure represents deployable forces only. Requirements are based on the results of the Total Army Analysis 2003. All other forces represent authorized levels.

MRC = major regional conflict; QDR = Quadrennial Defense Review.

a. Host-nation support and civilian contractors.

b. Force level in 2002.

Table 7.
Army Personnel Levels Through 2000 Based on the President's Budget and
the Recommendations of the Quadrennial Defense Review

	Actual 1996	Authorized			
		1997	1998	1999	2000
Based on the President's 1998 Budget					
Active Army	491,000	495,000	495,000	495,000	495,000
National Guard	370,000	367,000	367,000	367,000	367,000
Army Reserve	226,000	215,000	208,000	208,000	208,000
Based on Recommendations of the Quadrennial Defense Review					
Active Army	491,000	490,000	485,000	480,000	480,000
National Guard	370,000	367,000	362,000	357,000	350,000
Army Reserve	226,000	215,000	208,000	208,000	205,000

SOURCE: Congressional Budget Office based on William S. Cohen, *Annual Report to the President and the Congress* (Department of Defense, April 1997); and "Reimer/West Memo to Cohen," *Inside the Pentagon*, June 12, 1997, p. 13.

NOTE: Personnel levels are for the end of the fiscal year.

Alternative I: Increase Reliance on Host-Nation Support and Civilian Contractors

The Army could reduce its requirement for support forces and speed deployments by relying more on host nations and contractors for some support services. As the Army built up forces in a theater to fight a major regional conflict, the nation it was defending could be expected to aid those forces by providing transportation, fuel, and other logistics support. Such host-nation infrastructure could help sustain a sizable U.S. force once it had safely secured airports, seaports, and air cover. In addition, the Army could hire civilian contractors to provide such basic subsistence items as food, laundry services, and shelter.

If host nations and civilian contractors overseas can provide support services when necessary, the Army need not maintain as many support forces in peacetime. Nor would it have to transport as much equipment

overseas in wartime. According to a recent analysis commissioned by the Office of the Secretary of Defense, the capacity of South Korea's civilian infrastructure exceeds the demands that the U.S. military would probably place on it during a conflict by a factor of 12 or more in the areas of cargo transport, petroleum transport, and availability of construction workers, hospital beds, and water supplies.¹ The capability of Saudi Arabia's civilian infrastructure exceeds U.S. wartime needs by at least a factor of four, the analysis found.

The U.S. military has enlisted the help of host nations during past conflicts. During the early stages of the Persian Gulf War, for example, Saudi Arabia provided extensive support in the form of food, fuel, water, and transportation. In preparing some studies, planners at the Department of Defense have assumed that the Army could count on large contributions of similar support in the future. For instance, in its analysis of mobility requirements, DoD assumed host-nation contributions—primarily in the areas of supply and transportation units—equivalent to as many as 42,000 U.S. sup-

1. John C.F. Tillson and others, *Review of the Army Process for Determining Force Structure Requirements* (Alexandria, Va.: Institute for Defense Analyses, May 1996).

port troops.² By contrast, the Total Army Analysis 2003 assumed host-nation support equivalent to just 15,000 support forces.

Civilian contractors provide another source of outside personnel to perform support functions. The Army established the Logistics Civil Augmentation Program (LOGCAP) in 1985 to plan how it could augment its support forces with civilian contractors who would perform selected combat-support and combat-service-support activities during overseas deployments. The Army has a contract with DynCorporation Aerospace Technology to develop a basic augmentation plan applicable worldwide, as well as plans for operations in 13 specific countries. The contract also calls for DynCorporation to be able to receive, house, and sustain as many as 20,000 U.S. troops for up to 180 days with 30 days' notice. The Army's previous LOGCAP contractor, Brown and Root Service Corporation, provided similar services to Army forces in Somalia and Bosnia.³

The current contract envisions support for relatively small deployments—no more than 40,000 troops. Thus, LOGCAP services might be useful in providing initial or limited support before a system of host-nation support was established, or in managing that system once it was in place. In any case, because a LOGCAP contractor must have a global network of in-country subcontractors, it can provide a ready-made network to ease the entry of U.S. forces into a theater, without putting demands on the military's transportation system.

Recent analyses have suggested that increased reliance on host nations and civilian contractors could reduce the Army's requirements for support forces by 42,000 to 77,300 troops. The first number is based on the estimate of possible host-nation contributions used in DoD's Mobility Requirements Study; the second reflects an assessment by the Institute for Defense Analyses of the potential of both host-nation support and civilian contractors.⁴ The 42,000-person estimate is roughly equivalent to the number of new support troops

that would result from the Army's plan to reorganize the National Guard.

Changes in Force Structure

This alternative assumes that host nations and civilian contractors could provide support equivalent to that afforded by 62,000 Army troops (see Table 6). Their contributions would more than make up the Army's perceived shortfall in support forces.

With no shortage of support troops, this option would cancel the Army's plan to turn Guard combat brigades into support units and would eliminate four Guard divisions from the force structure. That would reduce the size of the Guard by about 58,300 personnel—more than half the excess combat forces in the Army. To ensure an orderly drawdown of forces, one division would be eliminated each year between 1998 and 2001. The Guard would lose an additional 3,200 soldiers who indirectly support the disbanded divisions. Thus, by 2002, the National Guard would contain only four combat divisions and 305,000 people overall.

Advantages

Alternative I would have several advantages. It would make overseas deployments of U.S. forces easier, it would eliminate more than 58,000 excess combat forces from the National Guard, and it would result in significant annual savings once complete.

Using host-nation support should make the job of assembling large numbers of U.S. forces in an overseas theater faster and less difficult. When the first troops arrived, some support personnel would already be in place to assist them. Some support equipment would also be on hand already and would not have to be shipped from Army bases elsewhere. If host nations and in-country contractors could provide support forces equivalent to 62,000 soldiers during the conduct of two MRCs, the Army could reduce the amount of equipment to be shipped overseas by more than 10 percent. As a result, U.S. forces could finish deploying earlier than under the Army's plan. Specifically, all forces could be in place for an initial conflict in Korea 10 days earlier and in place in the second theater 30 days earlier (see Table 8).

2. Ibid.

3. Brown and Root Service Corporation was the Army's LOGCAP contractor from 1992 until January 31, 1997. The Army awarded a five-year contract to DynCorporation Aerospace Technology to provide LOGCAP services until January 31, 2002.

4. Tillson and others, *Review of the Army Process*.

Another advantage of essentially substituting host-nation support and civilian contractors for Army personnel is that the U.S. government would have to pay for their services only in the event of a conflict. In some instances, such as during the Persian Gulf War, the host nation might even provide some support services free of charge. Civilian contractors in the LOGCAP program charge an annual fee for planning support even if their services are not used, but that cost is less than the cost of keeping thousands of soldiers in uniform, even in the reserves.

After the drawdown in Alternative I was complete, the Army would save \$1.4 billion a year (\$800 million in direct savings and \$600 million in indirect savings,

Table 8.
Effect That Increased Support from
Host Nations and Civilian Contractors
Would Have on Deployment Times

	Army's Plan	Alternative I
First MRC in Korea		
Contribution from Host Nation and Contractors (Soldier equivalents)	9,000 ^a	38,000
Time Required to Assemble All Forces in Theater (Days after start of conflict)	130	120
Second MRC in the Middle East		
Contribution from Host Nation and Contractors (Soldier equivalents)	6,000 ^a	24,000
Time Required to Assemble All Forces in Theater		
Days after start of first MRC	230	200
Days after start of second MRC	185	155

SOURCE: Congressional Budget Office based on John C.F. Tillson and others, *Review of the Army Process for Determining Force Structure Requirements* (Alexandria, Va.: Institute for Defense Analyses, May 1996), and Army data.

NOTE: MRC = major regional conflict.

a. Based on the Total Army Analysis 2003.

compared with the cost of today's Army) from the reduced number of people and divisions it would have to support in the National Guard. Compared with its plan, the Army would not have to pay for the restructuring of Guard units, thus saving an additional \$3 billion over roughly a decade.

Disadvantages

Relying on host nations and civilian contractors for some support services—even for just a small fraction of overall Army needs—would entail some risk. Today, the Army uses civilian contractors primarily to provide assistance for small peacetime contingencies; as a result, contractors may not be capable of supporting large deployments. The Army argues that civilians may also be reluctant to work in the hostile environments that could develop during a major regional conflict, particularly if they risk exposure to chemical or biological weapons.

Some host nations may be unable or unwilling to provide support for U.S. forces. In recent examples, U.S. forces operating in Somalia and Bosnia were not invited into the country by the host government. Theoretically, the United States might someday need to operate in countries where the infrastructure was limited and unable to support the large number of forces necessary for a major conflict. However, it is hard to imagine circumstances in which the Army would deploy hundreds of thousands of troops to a country that lacked an extensive and developed infrastructure or one that was unwilling to help support the U.S. forces sent to its aid.

The Army has also expressed the concern that even where host nations have the capacity to support large U.S. operations, there is no guarantee that they will do so when needed without written agreements. That concern is a legitimate one. It motivates the Army's desire to have enough deployable support forces for an MRC in its own ranks. It also explains why the Total Army Analysis 2003 assumed a relatively small amount of host-nation support.

U.S. experience in the Persian Gulf War, however, suggests that the Army's fears are overblown. During that operation, the Saudis provided large amounts of support at their own expense, even without prearranged

agreements. Contracts were negotiated in the country even as U.S. soldiers were arriving.

Alternative I would suffer from at least three other disadvantages. First, it would cut the number of Guard divisions by half, significantly reducing the size of the U.S. forces that are held in reserve to deal with unknown, unanticipated threats. Although the Army also plans to cut the number of Guard divisions, this alternative would eliminate about 16,000 more Guard combat troops than the Army's plan. Second, this option would not significantly reduce the Army's need to call up reservists during peacetime to support even small operations. And third, by cutting the National Guard by 17 percent, it would reduce the forces available to meet the needs of state governors. The Guard's overall ability to carry out its state mission would probably not be affected, but some states could be left with much smaller Guard contingents than they have today.

Alternative II: Create Additional Support Forces in the Active Army

One way to address the Army's shortage of support forces is to create extra support units in the active component rather than in the reserves, as the Army's plan envisions. The large numbers of reservists necessary to support just one MRC, and the fact that they would be needed overseas shortly after a conflict began, raises concerns about the feasibility of relying so heavily on reserve support units in such an operation. Based on a recent analysis by RAND, the reserves could not provide the level of support that the Army assumes for a major regional conflict if the call-up of units was delayed by as little as 20 days.⁵ During the Persian Gulf War, the first units were not called up until 20 days after the conflict started. For the rest of the units, even longer delays, averaging 100 days, elapsed before their activation. Increasing the number of active-duty sup-

port forces would lessen the Army's reliance on reserve support forces and the risk that they might not be available in time.

The overall size of the active Army is limited by budget constraints, so CBO did not investigate any alternatives that would increase the number of deployable forces in the active component. The only way to add support forces to the active Army without increasing its size or converting institutional forces to deployable forces—approaches CBO did not consider—is to turn active combat units into support units.

Changes in Force Structure

Alternative II would convert two active-duty heavy divisions entirely into support units (thus eliminating the divisions from the Army's combat forces). The process would be similar to the one the Army plans to use to reconfigure National Guard combat units. As explained in Chapter 1, divisions typically contain both combat units and combat-support/combat-service-support units. In this alternative, the purely combat units, such as tank and attack-helicopter companies, would be reorganized and reequipped for support missions. Some of the existing support units—such as signal, maintenance, and transportation units—would be unchanged. Others, such as artillery units, would be converted to forces for which the Army has the greatest need—primarily transportation and fuel-handling units. In addition, if the new support forces were to be available to fill the roles that are most in demand for peacetime operations, some of them would need to become military police and civil affairs units.

As with the Army's plan, turning active-duty combat divisions into support units would be a long process, taking up to a decade. New equipment would have to be purchased and exchanged for combat equipment, and personnel would have to be transferred or retrained to staff the new units. Costs would be similar to those of the Army's plan: almost \$3 billion over the next 10 years. All in all, the process of converting two active divisions to support units would require reassigning 33,000 people and hundreds of pieces of equipment.

Creating an extra 33,000 support spaces in the active component would still leave the Army short about

5. See Ronald E. Sortor, *Army Active/Reserve Mix: Force Planning for Major Regional Contingencies* (Santa Monica, Calif.: RAND, 1995), p. 31-39, for a discussion of the impact of mobilization delays on the availability of reserve support forces.

25,000 support spaces overall, based on the requirements of the Total Army Analysis 2003. Thus, Alternative II would also convert one combat division in the Guard to support units, creating an additional 15,000 support troops (see Table 6). The remaining support needs would have to be met by host nations or through the use of civilian contractors.

Could the National Guard Play a Greater Combat Role?

With two heavy divisions eliminated from the active Army, the service would no longer have enough combat forces in the active component to fight two major regional conflicts. As a result, it would have to rely on combat units in the National Guard to help make up the full complement of combat forces for a second MRC.

Reserve combat units may be more than adequate to fight likely opponents. Although the Army has been reluctant to use them for recent or potential regional conflicts, some defense experts maintain that Guard combat units are more capable than the standing armies of potential adversaries around the world. For instance, they are equipped with newer and more sophisticated weapons than many national armies. And members of the National Guard are better educated and receive more realistic training than the soldiers of many of the United States' potential enemies.

Assuming that Guard combat brigades can be trained to the same level of proficiency as their active-duty counterparts, the feasibility of substituting them for some active units in a second MRC hinges on how quickly they can be ready to deploy. The Administration's goal is to have each of the 15 enhanced readiness brigades (ERBs) in the National Guard ready to deploy within 90 days.⁶ (ERBs are combat brigades that the Administration plans to maintain at a higher level of readiness than other combat forces in the Guard. They are intended to reinforce active combat units during a major conflict.)

Some analysts have questioned the realism of that 90-day goal, however. A 1995 study by RAND estimated that readying a Guard brigade for combat could take as long as 128 days, although its intermediate estimate was 104 days.⁷ Even that estimate is two weeks longer than DoD's official goal. In contrast, a study by the Institute for Defense Analyses claimed that at least some Guard brigades could be ready to deploy in just 60 days.⁸

If some Guard combat units were ready for deployment after 60 to 104 days of training, and if transit to the theater took 22 days, Guard units could begin arriving in theater in 82 days to 126 days. Of course, any time that elapsed between the start of the first conflict and the mobilization of reserves would be added to that arrival time. Thus, if the second conflict started 45 days after the first (and the Guard was mobilized as soon as the first conflict began), then Guard brigades could begin to arrive about 40 days to 80 days into the second conflict.

With that sort of timeline, Guard brigades would not be able to provide an initial defense, or halting force, during a second conflict. As in any major conflict, combat units would be needed early in a second MRC to deter further progress by the aggressor. Only active-duty combat units could deploy quickly enough if the separation between two MRCs was as little as 45 days. Thus, they would have to provide the halting force early in a second MRC (similar to the one that the 82nd Airborne Division and other early-arriving combat units provided during Operation Desert Shield).

In all, 3 1/3 active divisions would be available for the second conflict under this alternative. The Guard would provide the remaining combat forces. In order for the Army to deploy the rough equivalent of 5 1/3 divisions, the Guard would have to send six of its 15 ERBs to the second theater.

Relying on the reserves to provide six combat brigades for a second MRC might not delay the Army's ability to conduct large-scale operations. The first Guard brigades could begin arriving 40 days to 80 days

6. Deborah R. Lee, Assistant Secretary of Defense for Reserve Affairs, was quoted as saying that this goal would be met by 1999. See Kristin Patterson, "Lee, Full Guard Enhancement by 1999," *Army Times*, July 1, 1996, p. 25.

7. Sortor, *Army Active/Reserve Mix*, p. 45.

8. John C.F. Tillson and others, *Reserve Component Roles, Mix, and Employment* (Alexandria, Va.: Institute for Defense Analyses, May 1995).

after the conflict started. Given the long time needed to transport all Army forces to a second MRC, waiting for the remaining Guard units might not significantly slow the arrival of the full combat force. In fact, even if all six Guard brigades could be ready to deploy in 90 days (or 45 days into the second conflict), there would not be room on the transport ships to move all of them to the theater.

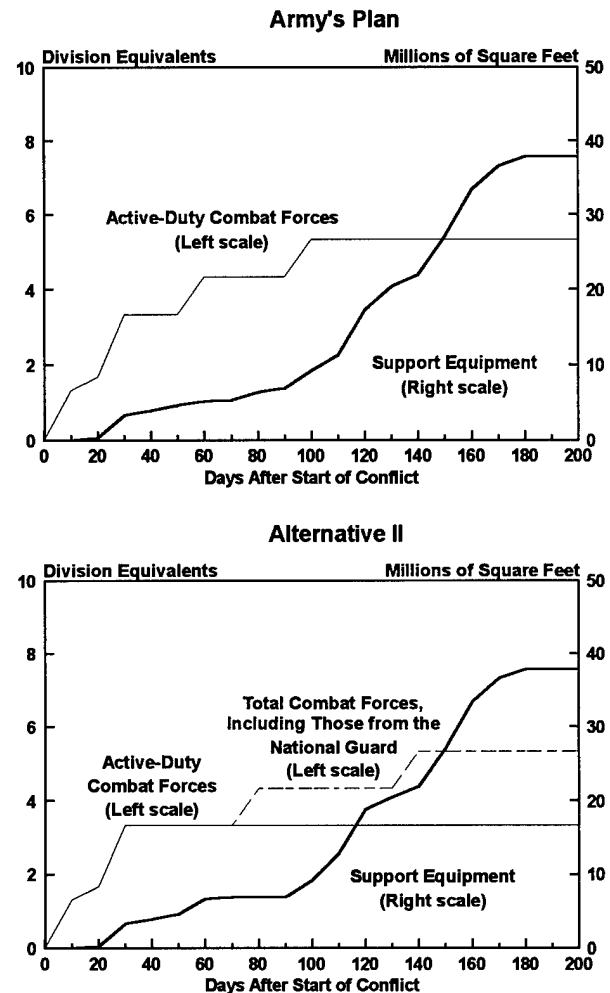
A 1996 RAND study that examined the time and resources needed to train Guard brigades for combat concluded that training all six heavy ERBs for a major conflict would require a minimum of 159 days.⁹ But even if the last of the six took that long to get ready—and thus did not arrive in theater until 140 days after the start of the second conflict—all six would still be in place over a month before all of the necessary support equipment for that theater (see Figure 12). In short, the Guard brigades that would form a significant part of the combat forces for a second MRC in Alternative II should be ready to deploy overseas well before all of the support forces needed in the theater could be delivered there.

Advantages

Alternative II has several distinct advantages. By creating more support units in the active component, it would make a rapid buildup of forces for an initial conflict less risky. And assuming that the new support forces were of the appropriate type, it would also make more active units available for small peacetime operations, thus eliminating the need to activate reservists for such missions. Avoiding activation costs for thousands of reservists in peacetime could save the Army money. Additional savings might result if the new support units cost less to operate and maintain than the combat units they replaced. Those annual savings would be small, however. Once all of the units had been converted (after 2010), this alternative might save \$100 million a year compared with the current Army (see Table 6). Actually converting the units would cost a total of almost \$3 billion before 2010.

Unlike the previous option, this alternative would not rely heavily on resources outside the Army, such as

Figure 12.
Total Combat Forces and Support Equipment
in Theater for a Second MRC Under the Army's
Plan and Alternative II



SOURCE: Congressional Budget Office based on Army data and Thomas F. Lippiatt and others, *Postmobilization Training Resource Requirements* (Santa Monica, Calif.: RAND, 1996).

civilian contractors or allied nations, to provide support for Army combat forces. Thus, it would avoid the risks associated with that reliance, as outlined in the discussion of Alternative I. This option would also eliminate more than 40 percent of the excess combat forces in the Army, with a significant portion coming from the active component. (The Army's plan, by contrast, would reduce the size of combat forces only in the Guard.) And Alternative II would retain a large strategic hedge

9. Thomas F. Lippiatt and others, *Postmobilization Training Resource Requirements* (Santa Monica, Calif.: RAND, 1996).

against future uncertainty by retaining seven combat divisions in the Guard.

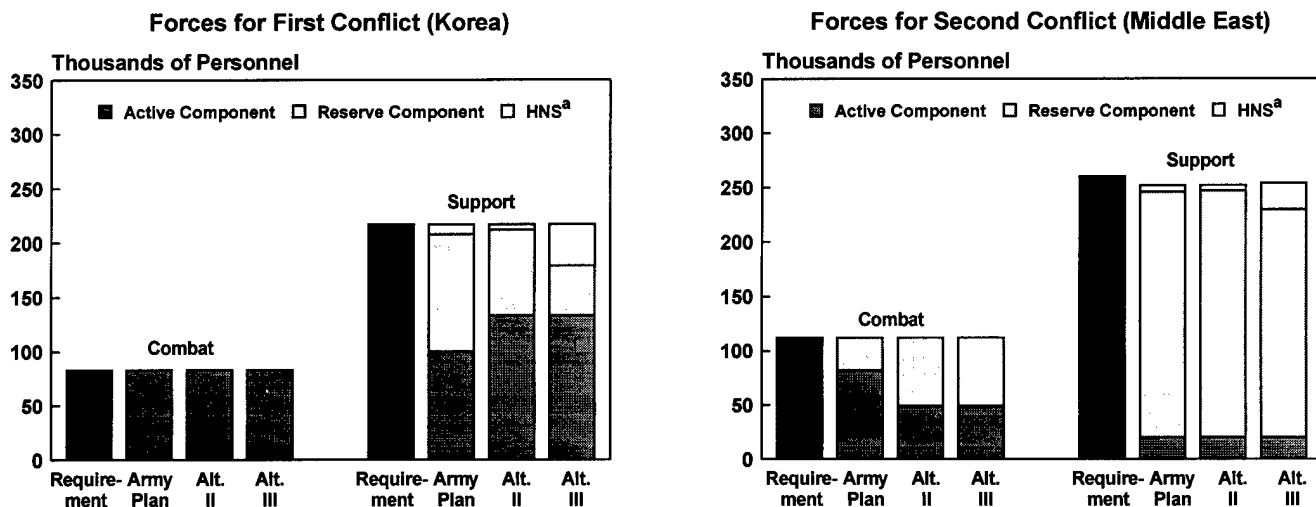
Disadvantages

Reducing the participation of reserve units in a single regional conflict or in peacetime operations would run counter to one of the cornerstones of U.S. defense strategy, the Total Force Policy. As noted in Chapter 3, that policy was adopted after the Vietnam War in an effort to involve the civilian soldiers of the reserve component in all major military operations. The Army and DoD have reiterated their support for the Total Force Policy, which they believe was validated during the Persian Gulf War. Since then, they have expanded the use of reserve forces in small peacetime operations. Some members of the Army have argued that restructuring the service in a way that eliminated reserve participation in all but two MRCs might make military leaders and other Army personnel feel more cut off from society as a whole.

From the perspective of costs, adding support forces to the active component could be inefficient because the Army would be paying for some full-time units that received little use on a day-to-day basis. Many forces that exist solely in the reserves, such as civil affairs and prisoner-of-war units, are there because they were originally perceived to be in low demand during peacetime. However, those types of units have been called up for recent contingencies in Haiti and Bosnia. If the Army is going to conduct similar operations on a regular basis in the future, the units it will require should perhaps be in the active Army. But if such operations will occur only infrequently, keeping those units in the reserves until they are needed would make more sense.

Perhaps the major disadvantage of Alternative II is that it would greatly reduce the number of active combat forces for a second MRC (see Figure 13). Just 3 1/3 active divisions would be available to fight in a second conflict under this option. Of course, the Army would still have enough combat forces in the Guard—seven

Figure 13.
Army Forces Available for a Conflict in Korea Followed by a Conflict in the Middle East Under Alternatives II and III



SOURCE: Congressional Budget Office.

NOTE: Requirements are based on the results of the Total Army Analysis 2003.

a. Host-nation support and civilian contractors.

divisions and 18 brigades—to provide the two additional divisions needed. But according to DoD estimates, entire Guard divisions could not be ready in time to participate in the second MRC. The Guard's enhanced readiness brigades should be ready in time, but substituting six separate Guard brigades for two active divisions would present at least four drawbacks.

First, six brigades do not provide the same combat capability as two divisions, even if Guard brigades are fully trained when they enter a theater. The reason is that although three separate brigades contain roughly the same number of combat troops as a division, they do not include the supporting forces—such as command and control, artillery, logistics, and aviation units—typically found in a division.¹⁰ Under Alternative II, separate combat brigades from the Guard could be attached to the active divisions sent to the second conflict, but the resulting force would not be as capable as one composed of five full divisions.

The difference in capability extends to individual soldiers as well. Although Guard combat brigades have the same equipment and would be trained to the same standards as active-duty brigades, their personnel do not have the same level of military experience. Active-duty soldiers sent into combat—especially senior officers and enlisted personnel in positions of leadership—have many years of experience that shape their judgment and ability to act with other Army units and other services. Members of the Guard, by contrast, are required to spend only weekends and an annual two-week training period honing their skills and military knowledge. Many reservists do have some active-duty experience, but the fact that they are soldiers only part of the time often means that their military skills are not as broad and deep as those of their active-duty counterparts, even after a period of postmobilization training. That difference, though impossible to quantify, is a source of uncertainty and risk in relying on reserve combat forces rather than active-duty combat forces. Some defense experts believe it is a particular concern in the case of large combat units such as brigades.

Second, Alternative II might not provide the same level of reinforcements as the Army's plan. In the case of two MRCs, if the Army needed to reinforce the initial combat force of 5½ divisions in either theater, it is unclear how many additional Guard combat brigades could be ready in time. The Army's plan would rely on the six most ready Guard brigades to act as reinforcements. Alternative II, by contrast, would use those brigades as part of the initial combat force in a second theater. As a result, any reinforcements would have to come from the second echelon of the Guard's 15 ERBs.

Third, relying on Guard units for initial combat forces (even for the second conflict) means that any delays in mobilizing the reserves after a crisis erupts will lead to delays in deploying the full contingent of combat troops overseas. That problem is even more critical for combat units than support units because the former take much longer to prepare for deployment. The estimate that six Guard combat brigades could arrive in theater about 140 days into a second MRC assumes that the reserves are mobilized on the day the first conflict breaks out. If that did not happen, arrival times would be pushed back, eventually calling into question the ability of those brigades to participate in a second conflict.

Moreover, even if mobilization occurred immediately, the job of training Guard units before deployment could introduce delays. RAND's 1996 training study examined the facilities and personnel that would be available to train Guard combat brigades in the event of a large-scale mobilization for one or more major conflicts. It determined that in order to train six Guard brigades in 160 days (thus allowing them to be overseas in 180 days), the Army would need to operate three brigade-level training sites simultaneously. That would be possible, RAND concluded, but somewhat risky. The main risk would be that the Army would not have enough proficient active-duty trainers to conduct large-scale training exercises at three sites. Running only two training sites would pose much less risk, the study asserted, but would mean that training four brigades would take 160 days, and training six brigades would take almost 230 days—putting those forces in the second theater 140 days and 210 days, respectively, after the start of the second conflict.

Fourth, delays in the arrival of Guard combat brigades could hold up the start of a counterattack in the

10. The Army is planning to create a division in the National Guard that would include three enhanced readiness brigades and an active-component headquarters. That division would be well suited to participate in a second MRC since its brigades would be accustomed to working together and it would have a highly trained and ready command staff.

second theater. If either mobilizing the reserves or training the combat brigades took longer than expected, the fifth and sixth Guard brigades might not arrive overseas until after all of the support equipment. Delays in both mobilization and training could even hold up the arrival of the third and fourth brigades until nearly all of the support forces were in place. Such delays could adversely affect the schedule for carrying out military operations in the theater, putting U.S. ground forces in danger while the commander awaited the arrival of all six Guard combat brigades.

Even if those brigades met the most optimistic schedule outlined above (all six arriving 140 days into the second conflict), they could still adversely affect the pace of a campaign. The reason is that theater commanders need not wait until all support forces are in place before mounting a counteroffensive. The Total Army Analysis 2003 calls for a final ratio of support to combat forces of nearly 2.5 to 1 for an MRC. But during the Persian Gulf War, ratios were around 1.4 to 1 when the ground war and counteroffensive began. Based on CBO's estimate of delivery rates, ratios of that level could be achieved in a second theater within about 110 days (or 155 days after the start of the first conflict). Under the most optimistic conditions, only three combat brigades from the Guard could be in theater in that time. Under less than optimal conditions—delayed mobilization, fewer than three training sites—none of the Guard brigades might be in theater that quickly. In that case, relying on the Guard for part of the initial combat force in a second MRC could delay a counteroffensive, lengthen the exposure of U.S. forces to attack, and lead to increased U.S. casualties.

A final disadvantage of Alternative II is that it would not significantly reduce costs or requirements for lift from the levels under the Army's plan. It would convert roughly the same number of combat forces to support forces as that plan. Thus, the additional costs should be about the same—around \$3 billion. Similarly, the Army would have to transport as much equipment overseas for two MRCs under this option as under its plan, so there would be no lessening of the service's taxing lift requirements.¹¹

11. Like the Army's plan, Alternative II would send an additional six enhanced readiness brigades as reinforcements to the second MRC. If a total of 12 ERBs could not be ready in time to take part in that conflict, the total lift requirement to move Army equipment would decrease by some 3.6 million square feet. In that case, all forces could be assembled in the second theater about two weeks earlier.

Alternative III: Increase Reliance on Host-Nation Support and Create Additional Support Forces in the Active Army

The Army could adopt the policies embodied in the first two alternatives at the same time. To make up for its shortage of support forces, it could place greater reliance on in-country resources as well as add support units to the active component.

Changes in Force Structure

Like Alternative II, this option would convert two active combat divisions to support units, thereby creating about 33,000 new support troops in the active Army. In addition, it would assume that host nations and civilian contractors could furnish the equivalent of 62,000 support personnel should the United States need to fight two nearly simultaneous MRCs. Thus, this alternative would provide the equivalent of 95,000 more support spaces than the Army has today. Along with creating additional support spaces, this option would reduce the size of the reserves by eliminating four Guard combat divisions and cutting 35,000 support personnel from the reserve component, equally distributed between the National Guard and the Army Reserve (see Table 9).

Advantages

Alternative III would create an Army with more support forces that were ready to deploy overseas quickly than is the case today or than would result from the Army's plan. An Army based on Alternative III would also need less lift to fight a major regional conflict. If an initial MRC broke out in Korea, the combined effect of adding 33,000 support forces to the active Army and relying on South Korea to provide substantial host-nation support would mean the conflict could be fought with less than 50,000 reservists, as opposed to the approximately 110,000 needed under the Army's plan (see Figure 13). Thus, the Army could proceed to build up its forces without risking as many delays from the slow

mobilization or activation of reserve units. Increased use of host-nation support and civilian contractors would also mean that the equipment for two MRCs could be in place more quickly than under the Army's plan. As a result, the completion of deliveries to the first and second theaters could be accelerated by 10 days and 30 days, respectively.

This alternative could also realize significant savings. With additional support forces in the active component, the Army could avoid activating reserve units in peacetime, thus saving about \$100 million annually. Eliminating four Guard divisions could save about \$1.4 billion a year (including direct and indirect savings), and cutting 35,000 reserve support troops could save another \$650 million annually (with \$400 million in direct savings from eliminating support units and \$250 million in indirect savings). Total annual savings after 2010, when this alternative would be fully implemented, could reach almost \$2.2 billion (see Table 10).

Disadvantages

Alternative III would suffer from the principal disadvantages of the two previous options. It would rely

Table 9.
Changes in the Number of Army Personnel
Under Alternative III

	Active Army	National Guard	Army Reserve	Total
Deployable Units				
Combat units	-33,000	-58,300	0	-91,300
Support units ^a	<u>33,000</u>	<u>-17,500</u>	<u>-17,500</u>	<u>-2,000</u>
Subtotal	0	-75,800	-17,500	-93,300
Nondeployable Units ^b	<u>0</u>	<u>-4,100</u>	<u>-900</u>	<u>-5,000</u>
Total	0	-79,900	-18,400	-98,300

SOURCE: Congressional Budget Office.

a. Forces not assigned to major combat units such as divisions or brigades.

b. Units in the Army's Table of Distribution and Allowances.

Table 10.
Average Annual Savings Under Alternative III
(In millions of 1997 dollars)

	1998-2010	After 2010
Costs to Convert Two Active-Duty Combat Divisions to Support Units ^a	-200	0
Savings from Not Deploying Reserve Forces in Peacetime	0	100
Savings from Eliminating Four Guard Divisions		
Direct	700	800
Indirect	500	600
Savings from Cutting Support Units in the Reserve Component		
Direct	350	400
Indirect	200	250
Total Savings	1,550	2,150
Direct	850	1,300
Indirect	700	850

SOURCE: Congressional Budget Office.

a. The total cost would be \$2.9 billion through 2006; after that, no costs would be incurred.

heavily on outside personnel to support Army efforts in MRCs. It would also depend on Guard combat units to fight a second conflict should one erupt shortly after a first. In addition, it would reduce the total combat forces in the Army by more than either of the previous two alternatives (26 percent) because it would eliminate combat units from both the active Army and the Guard. That means the United States would have fewer and less ready forces in reserve to deal with an unanticipated threat or to reinforce major regional conflicts.

Finally, Alternative III would make the biggest reduction of all the options in the size of the National Guard. It would eliminate a total of 79,900 people from the Guard, a cut of more than 20 percent. As a result, this alternative would have the largest negative impact on the number of Guard personnel that governors have available to deal with crises in their states and territories.

Alternative IV: Rely More Heavily on the Reserves to Fight a Second MRC

The last alternative that CBO considered would achieve significant savings by assuming that U.S. national security interests could be protected by a smaller active-duty Army. That assumption results from two premises: that there is little likelihood of a second MRC breaking out shortly after a first, and that even if one did, a couple of active divisions would suffice to provide a halting force for that conflict.

Some defense experts have argued that the United States does not need $5\frac{1}{3}$ divisions to fight each of the two threats most likely to challenge its security interests in the foreseeable future (see Box 1 in Chapter 2). Others have maintained that tactical aircraft could halt an enemy attack and weaken it enough that fewer—or less ready—ground forces would be needed to finish the job. Based on those theories, Alternative IV would use a smaller active-duty halting force in the event of a second MRC than previous options would. To supplement that force, it would rely on a greater number of combat units from the reserves.

As noted in the discussion of Alternative II, reserve combat units should have ample time to prepare for a second MRC because of the long time required to deliver Army equipment to two theaters overseas. However, under this option the Guard would contribute more forces for the second conflict than the six brigades assumed in Alternatives II and III. More Guard brigades could be available in time for the second MRC if some of them were light forces, if some were trained to lesser standards, or if the field commander could afford to wait until they were fully trained. In terms of numbers, the Army could call on nine of the Guard's 15 enhanced readiness brigades to make up part of the initial combat force for the second MRC and still have six ERBs in reserve for reinforcements.

The Army has devised a plan involving light brigades and limited training that would allow up to 10 ERBs to deploy in 160 days or less. Two of the 10 brigades would be light forces. They could train at separate, smaller training sites—since light units need less space to practice maneuvers than heavy units do—at the

same time that the heavy brigades were being trained elsewhere. Two of the eight heavy brigades would be trained simultaneously with other heavy brigades at the same site, but to a proficiency adequate only for operations in the rear of the combat area. Those two brigades would not be ready to participate in direct combat at the end of the 160-day training period.

If the Army can meet that training schedule, the nine Guard ERBs needed for the initial combat force for the second conflict under this alternative could deploy overseas within 160 days of mobilization. (Of those nine brigades, six would be fully trained heavy brigades, two would be light brigades, and one would be a heavy brigade prepared only for rear-area operations.) Assuming 22 days for transit, that would allow the Guard to put nine brigades in the second theater within 182 days of mobilization. And assuming mobilization began as soon as the first conflict broke out, that means the nine brigades would be in the second theater 140 days after the start of the second conflict. In that case, the Guard would be providing more than half of the theater's $5\frac{1}{3}$ -division combat force.

Changes in Force Structure

This alternative would eliminate three divisions from the active Army—two heavy divisions and one light infantry division—and four divisions from the Guard. Like most of the previous options, Alternative IV would rely on host-nation support and civilian contractors to provide the equivalent of 62,000 support troops for two MRCs. With such support, the Army would have no need to reorganize Guard combat units into support units, as it now plans. Alternative IV would instead eliminate 58,300 combat personnel from the National Guard.

This option would disband combat divisions in the active Army like the two previous alternatives, but its cuts would be larger (three active divisions rather than two). Unlike those alternatives, this option would not replace those combat units with an equal number of support personnel. All told, Alternative IV would eliminate more than 100,000 combat troops (44,000 from the active Army and 58,300 from the Guard), nearly as many as the Commission on Roles and Missions identified as excessive in its 1995 report. Disbanding three divisions would allow the Army to cut an additional

23,900 personnel indirectly associated with those divisions. As a result, the size of the active Army would shrink by 64,700 soldiers and the size of the Guard by 61,500.

Advantages

The main advantage of Alternative IV would be the significant savings it would produce (see Table 11). The Army could spend almost \$5.3 billion less each year after 2010 by maintaining a smaller combat force (\$3.9 billion less by having three fewer active divisions and \$1.4 billion less by having four fewer Guard divisions). Of those savings, almost \$3 billion would be direct savings and about \$2.3 billion would represent indirect savings. By adopting this option, the Army would also avoid the costs associated with its own plan to reorganize Guard combat units into support units.

Disadvantages

Although Alternative IV would generate more savings than any other option in this report, it would also entail more risks. Those risks include the ones associated with previous options, such as relying on forces outside

the Army to provide support for major regional conflicts and calling on reservists to support even small operations in peacetime.

The largest risk, however, would probably come from significantly reducing the number of combat forces in the active Army and relying on the reserves to provide more than half of the combat brigades to fight a second major conflict. The risks of depending on Guard combat units that were discussed in Alternative II would be heightened in this option because it would cut active combat forces more deeply. Specifically, nine separate Guard brigades would not provide the same combat power or military experience as three active divisions. Moreover, coordinating and controlling the activities of the nine brigades might be difficult without the command structure associated with the divisions. Although the division configuration that the Army is studying—with three Guard brigades and an active-duty headquarters—might be able to command and control three of the Guard brigades, the other six would have to be attached to other divisions or a corps.

Even if those concerns could be addressed, dependence on Guard brigades for combat would create additional risks. Deploying the Guard brigades to the second theater could take longer than estimated because of delays in mobilization or training. If the authors of RAND's study on postmobilization training thought that training six brigades at three sites was risky, then training nine brigades at four sites in the same amount of time would be even riskier. Reducing that risk to the level assumed in Alternative II (by training the heavy brigades sequentially instead of simultaneously) could require at least 216 days. In that case, the last of the nine brigades would not be in theater until almost 240 days after the start of the first conflict, or almost 200 days after the start of the second. Such tardiness—which late mobilization or longer training schedules would only exacerbate—would certainly delay the start of a counteroffensive because all support forces would already be in theater.

Some defense experts might argue that the cuts in Alternative IV are so large that they would limit the Army's ability to respond to major crises. With three fewer active divisions, the service would need nine Guard brigades to complete the initial combat force should a second conflict break out shortly after a first. But if the circumstances of the second conflict required

Table 11.
Average Annual Savings Under Alternative IV
(In millions of 1997 dollars)

	1998-2010	After 2010
Savings from Eliminating Three Active Divisions		
Direct	1,800	2,150
Indirect	1,500	1,700
Savings from Eliminating Four Guard Divisions		
Direct	700	800
Indirect	500	600
Total Savings	4,500	5,250
Direct	2,500	2,950
Indirect	2,000	2,300

SOURCE: Congressional Budget Office.

a larger combat force than 5½ divisions, it is questionable how many of the Guard's other six ERBs could be ready to participate, and if so, when. Furthermore, eliminating three divisions from the active Army and four divisions from the reserve component would leave the Army with only slightly more than 70 percent of its current combat forces.

Comparison of the Alternatives

Based on the criteria that CBO used, each of the alternatives in this report would have at least one advantage over the Army's plan. All of them (including the Army's plan) would cut at least 40,000 excess combat troops from the Army's force structure. Alternatives II and III would create more support forces in the active Army, thus reducing reliance on reserves in peacetime or early in a major regional conflict. Alternatives I, III, and IV would also reduce the amount of equipment that the Army would need to ship overseas to fight major conflicts. Finally, all of the options except Alternative II and the Army's plan would reduce the annual cost of the Army's force structure significantly.

All of CBO's alternatives would also entail more risk than the Army's plan, however. Alternatives I, III, and IV would save money in part by relying heavily on the support of allies during the conduct of MRCs. Those alternatives would also shrink the size of the National Guard, thus reducing the forces available to state and territorial governors for domestic emergencies. Finally, Alternatives II, III, and IV would cut active-duty combat forces, making the Army more dependent on reserve combat units to fight a second MRC.

Better Fit with Federal Missions

Today's Army contains too many combat forces and too few support forces compared with the numbers needed for the Army's federal missions. All of the alternatives, as well as the Army's plan, would eliminate some of the 110,000 excess combat troops identified by the Commission on Roles and Missions. Alternative IV

would go farthest, reducing combat forces by more than 100,000, with cuts almost equally divided between the active Army and the National Guard. Alternative III would eliminate more than 91,000 combat forces, and Alternative I would cut 58,300 (all from the Guard). Alternative II would make the smallest reduction of all the alternatives: 48,000 combat troops—a cut similar to that in the Army's plan (see Figure 14).

Only one of CBO's alternatives would increase Army support forces to counter the shortage identified by the Total Army Analysis 2003. Alternative II would create 48,000 additional support troops in the Army, a few thousand more than the Army's plan.

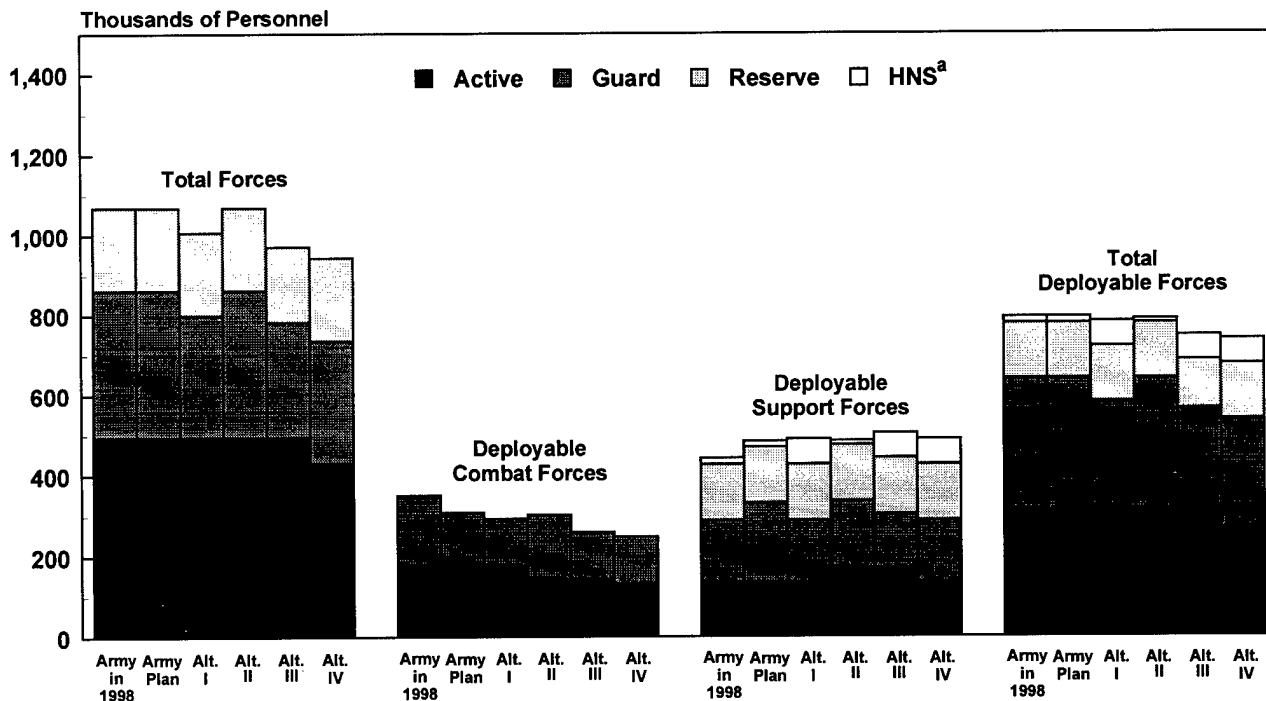
Quicker Response

All of the alternatives that CBO examined would allow the Army to carry out its federal missions more quickly. They would do so by making the Army less reliant on the reserve component for units that would deploy early to a major regional conflict, by reducing the amount of equipment that would have to be shipped overseas for such a conflict, or both.

Alternatives II and III would add 33,000 support forces to the active Army, thus reducing the number of reservists needed for an initial MRC by an equivalent number. As a result, those alternatives would have the added advantage of lessening the need for reserve support forces for small operations in peacetime.

Three of the options would shorten the time required to transport all of the Army's support equipment to a theater overseas. By relying on host nations and civilian contractors for some support services, Alternatives I, III, and IV would require less airlift and sealift to deploy Army forces to major conflicts overseas. The three alternatives would make the same reduction in the amount of equipment to be shipped: a cut of more than 6 million square feet in the case of an MRC in Korea and of almost 4 million square feet in the case of an MRC in the Middle East. Consequently, all U.S. forces could be in theater 10 days earlier than under the Army's plan for an initial conflict and 30 days earlier for a second conflict.

Figure 14.
Army Forces Under Various Alternatives



SOURCE: Congressional Budget Office.

a. Host-nation support and civilian contractors.

Savings

All of CBO's alternatives would cost less than the Army's plan in the long run, after all of the changes had been made. Three of them would also cost less than the Army's plan over the next 12 years (see Table 6). Alternative IV would reap the biggest long-term savings, almost \$5.3 billion per year after 2010. Alternatives I and III would save considerably less, approximately \$1.4 billion and \$2.2 billion a year, respectively. Like the Army's plan, Alternative II would cost a total of almost \$3 billion to implement, but it could eventually result in some small savings—about \$100 million annually.

Fewer Forces for State Duty

Three of CBO's alternatives (I, III, and IV) would reduce the overall size of the National Guard and thus the number of personnel available to state and territorial governors in times of domestic crisis. The proposed

reductions range in size from 62,000 to almost 80,000 people. Depending on how they were distributed across the country, such cuts could have a serious impact on the size of the Guard in some states.

A cut of 80,000 personnel would represent a reduction of more than 20 percent in the overall size of the Guard. Even though peak demands for state duties required no more than 6 percent of the National Guard's total personnel (including both the Air and Army Guard) between 1987 and 1995, disproportionate reductions could leave some states with not enough people to respond to particularly large domestic emergencies.

The Defense Department has suggested ways to address local Guard shortages that could occur in times of crisis.¹² One option would allow members of the

12. See Department of Defense, *Accessibility of Reserve Component Forces* (April 18, 1994); and General Accounting Office, *Reserve Forces: Proposals to Expand Call-Up Authorities Should Include Numerical Limitations*, GAO/NSIAD-97-129 (April 1997).

Army Reserve to be used in a domestic emergency even without Presidential call-up if the President declared the emergency a federal disaster. As noted in Chapter 2, in the absence of a Presidential call-up, Reserve members are limited to 15 days of involuntary active duty a year—nearly all of which is taken up by the two weeks of annual training they must receive. Changing that situation would require amending existing law to allow the Secretary of the Army to call up reservists for longer than 15 days. Besides making personnel available, doing that would allow states to use Reserve equipment to help clean up after natural disasters.

A second approach, which could be pursued along with the first, would be to establish national or regional agreements under which states would share Guard assets. A national compact would ensure that all states had access to the Guard's special capabilities, such as its limited number of large cargo helicopters. A compact would also help guarantee an equitable sharing of resources among large and small states. At least one interstate Guard agreement already exists (between several southern states), but expanding such agreements to cover the whole country would provide the greatest access to the largest pool of resources.

Increased Risk

All of CBO's alternatives accept a higher level of risk in fighting two MRCs than the Army's plan does. The increased risk comes from two main sources: relying on host nations and civilian contractors to support MRCs rather than trying to eliminate the Army's current shortfall in support forces, and depending on National Guard units to make up part of the initial combat force for the second MRC because of cuts in the number of active-duty combat troops.

The risk associated with maintaining the Army's current level of support forces may not be a great one. Some defense experts have questioned whether the large number of support forces called for in the Total Army Analysis 2003 is truly necessary. The country's previous military experience would argue against needing that many. The amount of host-nation and contractor support assumed in Alternatives I, III, and IV is less than what some analysts estimate has been provided in the past in similar situations. Although there is a risk

that such services would not be available in a future MRC, that risk is probably not very high.

Greater risks might be incurred by cutting active-duty combat forces, as Alternatives II, III, and IV would do. Such cuts would leave the Army without the 10 $\frac{2}{3}$ active divisions that it says it needs to conduct two MRCs nearly simultaneously. If a second conflict did occur, combat forces from the Guard would have to make up the balance. However, mobilization delays or insufficient resources for training could prevent the Army from having enough well-trained Guard brigades in theater in a timely fashion. Thus, relying on the Guard for initial combat troops would run the risk of slowing buildups, delaying counterattacks, or forcing commanders to operate with less than fully trained combat units.

Even if those problems failed to materialize, Alternatives II, III, and IV would provide less combat capability to the second conflict than the Army's plan would. Three Guard brigades would replace each active division eliminated, but they lack the artillery, aviation, and other supporting units typically found in a division. Nor do three separate brigades have as much ability to coordinate their maneuvers and operations as do brigades in a division, which are controlled by the division headquarters.

In addition, Alternatives II, III, and IV risk limiting the size and quality of reinforcements for a second MRC. The reason is that under those alternatives, the most ready combat brigades from the Guard would be needed to form the initial combat force. The enhanced readiness brigades left behind as reinforcements would presumably be less prepared for combat than the ones that deployed first. The Army's plan, by contrast, would use the Guard's most ready ERBs as reinforcements.

All of the risks associated with cutting active-duty combat forces would be felt most acutely under Alternative IV. It would eliminate three active divisions, compared with two under Alternatives II and III. As a result, Alternative IV would require the Guard to deploy nine initial combat brigades to a second MRC rather than six (see Table 6). That greater reliance on Guard units amplifies the risk that they would be late in deploying to the second theater or would not provide sufficient capability once there.

When assessing the total risk associated with any of these alternatives, readers need to weigh both support and combat forces. On that basis, Alternative I appears to be the least risky because, although it would rely on U.S. allies for some support, it would not lessen the number of active-duty combat forces. Alternative II, by contrast, would not rely on forces outside the Army for support but would cut active combat forces, thereby increasing dependence on combat units from the Guard. Alternative III or IV would carry all of the risks associated with the first two options. But because Alternative IV makes the largest cuts in active-duty combat forces (25 percent), it would be the riskiest of all.

Conclusions

CBO's alternatives illustrate different approaches that would generally entail increased risk in prosecuting a

second conflict but that could either save the Army money or provide more support forces earlier for the first conflict, or both. Alternative I basically follows the Army's current philosophy by preserving a large active-duty combat force (although it would rely on allies and civilians to provide some support during a conflict, thus saving a large amount of money). The other options differ more sharply from the Army's current approach by relying on the Guard to provide some of the initial combat forces for a second MRC. Those alternatives will be more appealing to people who think that a second MRC is relatively unlikely or that the risks associated with the threats now facing the United States are not as great as the Administration suggests. Alternative IV carries the greatest risk and the greatest savings; Alternative II the least. Despite their various benefits and drawbacks, all of the approaches that CBO analyzed represent viable choices that differ from the Army's risk-averse but expensive plan for its force structure.

Details About CBO's Mobility Analysis

To evaluate how long it would take to deploy Army equipment overseas for a major regional conflict, the Congressional Budget Office (CBO) developed a model of the U.S. military's intercontinental (or strategic) lift capabilities. CBO used the model to evaluate the feasibility of the Army's schedule for delivering forces to such a conflict. CBO also used the model to determine the impact of its various alternatives on the pace of Army deliveries. The model purposely assumes that deliveries take place under favorable conditions, for two reasons: to see whether the Army could meet its schedule even under the best of circumstances and to provide a conservative assessment of the impact of CBO's alternatives on the Army's ability to deploy forces overseas.

Two major components—airlift and sealift—make up strategic lift. CBO did not model airlift in detail. Rather, it relied on an estimate by the Department of Defense (DoD) to establish the total amount of airlift that will be available shortly after 2000 to move the U.S. military. CBO then assumed that the Army would have access to roughly the same fraction of total airlift that it did during the Persian Gulf War. To determine sealift capability, CBO used its model, which tracks the movement of all ships planned to be in the fleet of the U.S. Transportation Command in 2001.

Assumptions of the Sealift Model

The sealift model was designed to provide general approximations, not precise estimates, of the time needed to deliver Army forces overseas. For that reason the

model operates on single-day increments, rounding all activities to the nearest day. For example, if an SL-7 Fast Sealift Ship would take 17 days and five hours to sail from Savannah, Georgia, to Pusan, South Korea, the model treats the operation as requiring 17 days. Additionally, instead of assigning ships to particular ports (such as Long Beach or Oakland), the model assigns all ships based in the continental United States to either the East Coast or the West Coast and assumes that their destinations are somewhere in the Middle East or South Korea. In reality, travel times differ for ships going to or from different ports in the same general area, but those differences are relatively small and would not substantially affect the output of the model.

CBO's model contains three key assumptions that could have a considerable impact on the results. The first assumption is that port constraints are nonexistent. In other words, no matter how many ships (of any size) arrive at a given port on a given day, it is assumed that the harbor is sufficiently deep to accommodate them, that there are enough berths for all of them to dock, and that the port has enough workers and equipment to simultaneously load or unload every ship. That may be true of the U.S. ports that the military uses and large ports in South Korea and the Middle East. It is not the case for all foreign ports, however, some of which may not be deep enough or big enough to handle several large ships at once.

The second assumption is that all ships in the simulated fleet are fully operational over the entire course of the sealift operation. In reality, at any time some ships are in dry dock or otherwise unavailable because of routine maintenance or unanticipated problems. Moreover, it is the nature of all mechanical systems to break down over time, so it seems inevitable that a certain percent-

age of ships would encounter problems during their sealift operations that would either slow them down considerably or render them temporarily inoperable.

Third, the model does not include any other unforeseen impediments that could adversely affect the transit times of ships. An example of such an impediment would be a critical area (the Panama Canal, Suez Canal, or Straits of Hormuz, for example) that was treacherous or impossible to navigate, possibly because of mines, enemy forces, or physical damage to the waterway. Another impediment might be severe weather conditions. Situations like those would require some ships to alter (and thus lengthen) their course, increasing the amount of time it would take them to reach their destination.

All three of those assumptions represent best-case scenarios for delivering U.S. forces overseas. Thus, it is entirely plausible that in reality, sealift operations under different—and perhaps more likely—conditions would take longer than this model predicts.

The Database and Variables in the Model

The fleet of ships whose movement the model simulates is the fleet that DoD plans to have available for sealift operations by 2001. That fleet includes eight SL-7s; 52 roll-on/roll-off ships (ROROs); 19 large, medium-speed roll-on/roll-off ships (LMSRs); and 14 breakbulks (see Table A-1). Additionally, CBO assumed that the military would supplement its sealift fleet by hiring foreign charters with a combined carrying capacity roughly equivalent to 50 U.S. breakbulks.

Each of those ships has a total deck capacity measured in square feet. However, when equipment is loaded onto the ships, it must be tied down and secured. Furthermore, aisles must be left between rows of equipment for safety reasons. Consequently, only a certain percentage of each ship's total capacity can actually be used to carry equipment, and the model uses a variable

Table A-1.
Number of Sealift Ships Under the Control of the U.S. Transportation Command and Their Readiness Status

Type of Ship	Number of Ships in Readiness Status (Days until ready)						Total Number of Ships
	2	4	5	10	20	35	
SL-7 Fast Sealift Ship	0	8	0	0	0	0	8
Roll-on/Roll-off Ship	16 ^a	21	6	9	0	0	52
LMSR	8 ^b	11	0	0	0	0	19
Breakbulk	0	0	10	0	4	0	14
Foreign Charter	0	0	0	20	20	10	50

SOURCE: Congressional Budget Office based on data from the Department of Defense.

NOTE: LMSR = large, medium-speed roll-on/roll-off ship.

- These ships hold prepositioned Marine Corps equipment in peacetime. CBO assumed that after they delivered that equipment to a conflict, half of the ships would be available immediately to transport Army equipment and the other half would be available 45 days later.
- These ships hold prepositioned Army equipment in peacetime. After delivering that equipment to a conflict, the ships would be available to transport other Army equipment to the conflict.

(STO, for stowage factor) to capture that relationship. A typical value for STO is 0.75, meaning that only 75 percent of the ship's total capacity is actually used to carry equipment (see Table A-2).

The remaining variables in CBO's model determine the amount of time each ship requires to perform an operation. The first of those variables is the readiness status (RS), which indicates the number of days a ship needs to be activated and begin steaming. Most ships in the sealift fleet have an RS of two to five days, but a few have an RS as high as 20 days (see Table A-1). Another time variable (PORT) measures the amount of time a ship needs to maneuver into a port, dock, load or unload, and then head back out to sea. The typical value for the PORT variable is three or four days.

The final variable in CBO's model is the transit time between ports (TRANS). During the model's hypothetical sealift operation, the majority of ships sailed directly between ports in the United States (East Coast or West Coast) and ports in South Korea or the Middle East. Exceptions were ships prepositioned in Diego Garcia, Guam, or Saipan and a few ships that had to

load equipment belonging to troops in either Hawaii or Germany. In all cases, the value for TRANS was determined using the maximum sustainable speed of a given ship and the distance between its ports of embarkation and debarkation.

The Sealift Process in the Model

CBO's model begins on day zero, which is defined as the day orders are issued to activate the fleet for sealift operations. (That is assumed to be the day the first major regional conflict begins.) Each ship then becomes available for service at the end of its RS period, at which point it begins the following sealift process: it loads equipment (a delay equal to the PORT variable) and sails to its destination (TRANS). It then unloads the equipment at the theater of conflict (another PORT delay). When the PORT procedure is over, the equipment is defined as having arrived in theater. The ship then returns home (TRANS) to begin the cycle again.

Table A-2.
Characteristics of Various Types of Sealift Ships Under the Control of the U.S. Transportation Command

Type of Ship	Days for PORT Procedure ^a	Typical Capacity (Square feet)	Stowage Factor (Percent) ^b	Maximum Sustainable Speed (Knots)
SL-7 Fast Sealift Ship	3	213,000	75	27
Roll-on/Roll-off Ship	3-4	150,000	75-80	17-19 ^c
LMSR	3	375,000	75	24
Breakbulk	4	72,000	75	19-20

SOURCE: Congressional Budget Office based on Department of Defense, Military Traffic Management Command, *Logistics Handbook for Strategic Mobility Planning* (April 1994), and other data from the Department of Defense.

NOTE: LMSR = large, medium-speed roll-on/roll-off ship.

a. The amount of time necessary for a ship to enter a port, dock, load or unload, and then leave the port area.

b. The percentage of a ship's capacity actually used for carrying equipment.

c. One roll-on/roll-off ship in the fleet has a maximum sustainable speed of 25 knots.

The amount of equipment that each ship delivers is its capacity times its STO. Each time a ship loads equipment, the model takes note of what type of equipment is loaded. Every combat unit sent to a conflict has unit equipment, such as tanks, helicopters, and the like. The movement of combat units (typically divisions) is modeled explicitly. In addition, large numbers of combat-support and combat-service-support (CS/CSS) units and associated equipment accompany each combat unit. Their equipment includes trucks, field kitchens, and myriad other items. The model keeps track of the unit equipment assigned to specific Army divisions and other combat units, but only the overall amount of CS/CSS equipment.¹

In general, CBO did not determine in what order units would be sent to a conflict or which specific units would be loaded onto each ship. Instead, the model used the following guidelines to determine when different types of equipment would be shipped to the theater.

The equipment sent aboard prepositioned ships is, for obvious reasons, predetermined. Additionally, a

number of ships are designated to carry equipment for the Navy and Marine Corps on their first sailing and only become available for Army use once that initial delivery is completed.

For all other ships, the decision to load combat unit equipment or CS/CSS equipment was made according to the following criteria. Certain combat unit equipment takes first priority because it belongs to the halting force (the units that are intended to prevent the enemy from making further advances until the rest of the Army's forces arrive and a counteroffensive can be mounted). CS/CSS equipment is also sent during the initial shipments to provide support for the combat forces. In general, throughout the modeling of sealift, support forces and their CS/CSS equipment are shipped along with combat forces so that the ratio of support equipment to combat equipment does not fall below a minimum of roughly 1 to 1, based on square footage. Once all combat unit equipment has been sent, the model continues sending CS/CSS equipment until the full complement has arrived in theater. (In determining how much of the required equipment has arrived in theater, the model includes not only equipment that has been sent by sealift but also equipment that is in place or airlifted. "In place" refers to equipment that is assigned to forces stationed in that theater as well as equipment prepositioned on land near the theater.)

1. CBO modeled the movement of unit equipment only. It did not estimate the time and ships necessary for deliveries of ammunition or other supplies needed to sustain a major regional conflict.